

A SYMBOLIC MODEL OF THE SIMULTANEOUS ACHIEVEMENT OF  
CONCRETE BENEFITS AND LEARNING BY PARTICIPATING GROUPS IN  
EXPERIENTIAL ACTIVITIES:  
*THE SPHERE OF EXPERIENTIAL LEARNING*

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ABSTRACT

*Commencing with the premise that identifying the learning outcomes of experiential activities presents difficulties to both academics and trainers, the paper explores the nature and culture under which experiential activities are undertaken. It identifies, advances the theory and develops a symbolic model of social learning for participating groups in experiential activities. Further reflection leads the authors to identify three basic components which they believe to be at the core of all experiential activities and which enables the symbolic model, previously mentioned, to function.*

INTRODUCTION

During the last few decades, education and training has expanded to include many new principles and practices of teaching and learning (Carr and Kemmis, 1986); (Cohen and Manion, 1989); (McNiff, 1988). According to them, adult education should contribute to the reinvention of civil society 'in defence of the life-world' (Welton, 1995, p.16), or it should support creative processes enabling people to 'learn their way out' of the vicious circle caused by uncontrollable mechanisms that control our planet today (Finger, 1995, p.122).

Others, (Kade, 1993), (Belanger, 1994) are convinced that adult and thus management education should break through the barriers of its institutionalised forms and explore processes of adult learning in a variety of contexts.

Still others, (Marsick and Watkins, 1990) relate the role of adult education to management activities and human resource development in enterprises. Yet other practices and theories are also noticeable, such as experiential learning (Jarvis, 1987) and self directed learning (Brookfield, 1986) both particularly important to ABSEL members and a wide body of academics and trainers worldwide. For many ABSEL

members used to experiential activities, the form of assessment and the substantiation of learning that happens in that experiential activity often presents problems. This subject has been a regular feature at ABSEL Conferences and is an on-going debate in academic circles (Gentry, 1998); (Anderson and Lawton, 1992); (Peach and Platt, 2000).

To some, proving that learning occurs through experiential activity or 'total enterprise simulation' is like the search for the 'Holy Grail'! (Gosenpud and Washbrook, 1993; 1994; 1995; 1998; 1999; 2000). Yet Klabbers (1994) reported in Patton, Davis and Govahi (1998, p.55) notes that:

*A review of three decades of business games does not reveal how effective they are*

whilst Anderson and Lawton (1997, p.116) reported that: *It remains difficult, if not impossible, to support objectively even the most fundamental claim for the efficacy of games as a teaching pedagogy.*

Whilst we acknowledge that the American culture is totally competitive –'winning is everything' (Peach and Platt, 2000, p.245) the view expressed by Dickenson and Gentry (1999) in a recent ABSEL paper (when referring to a previous paper by Gentry et al, 1998, p. 63) concluded that:

*Measurement in the domain of experiential learning does not have a rich history. To the extent that educators have even attempted to measure learning, analyses have generally been limited to the investigation of mean differences of outcome variables, despite frequent admonitions that the greater concerns should be given to the learning process rather than performance outcomes.*

This view was not new having been identified many years earlier by Trow (1970, p.15):

*Research on innovation can be enlightening to the innovator and to the whole academic community, by clarifying the processes of education and by helping the innovator and other interested parties to identify those*

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*procedures, those elements in the educational effort, which seem to have desirable results.*

Reflecting upon our experiences in teaching, training and working with ABSEL members in the field of experiential learning, these 'learning process' approaches now seem to us attempts to come to grips with the changing circumstances in which (management) teaching and learning take place. They have in common the ambition to combine elements of 'problem solving' and of 'learning' in a dialectical way. Problem solving has to do with the creation of conditions that may improve the living and/or working situation of the subjects involved. Learning, in these approaches, in some way or other refers to creative processes whereby fragmented experiences, biographies, competencies, habits, perspectives or understandings become integrated into new, renewed or more encompassing meanings or framework and as such contribute to the process of problem solving.

Our thinking to date in relation to experiential learning, has always been very much in line with this dialectical understanding of *problem solving* and *learning*. Yet, we have come to realise, through writing this paper, that some additional elements should be taken into consideration, especially with respect to group learning in experiential activities.

To trainers using traditional instructional methods, the paradigm shift entailed in adopting experiential learning requires more than an exchange of methodologies: it also involves new suppositions, concepts and terminology. Central to the understanding of experiential learning is the concept of the 'learning milieu'.

The 'learning milieu' is the social, psychological and material environment in which students and teachers, participants and trainers work together. The 'learning milieu' represents a network or nexus of cultural, social, instructional and psychological variables. These interact in complicated ways to produce in each class or course, a unique pattern of circumstances, pressures, customs, opinions and work styles which suffuse the teaching and learning that occur there. The configuration of the 'learning milieu' in any particular classroom depends upon the interplay of numerous different factors. For example, the constraints on the organisation of teaching in universities or companies: the pervasive operating assumptions about the arrangement of subjects, curricula, teaching or training methods and assessment held by faculty and company trainers: there are the individual teachers' or trainers' characteristics in teaching style, experience, professional orientation and private goals: finally there are participants perspectives and preoccupations.

Acknowledging the diversity and complexity of the 'learning milieu' is an essential pre-requisite for the serious study of both assessment and the educational programme itself.

The argument advanced here is that any experiential innovation (even for research purposes) cannot sensibly be separated from the 'learning milieu' in which they become part. If one accepts this argument, then some of the difficulties

in assessing learning through experiential activities, previously mentioned, become apparent.

We believe therefore that other elements beyond *learning* and *problem solving* are important and should be considered. Firstly, we believe that there must be a third dimension, that of 'responsibility'. Wildemeersch (1991) argued that learning and problem solving do not come about in a vacuum and that they therefore relate to issues of social responsibility.

A further important element which, we believe, needs to be taken into consideration is 'sociality'. The learning processes that we refer to in this paper (and which many ABSEL members practice) are all group and project-orientated learning processes. In view of this, we believe there is a need to conceptualise group learning in such a way that it is not just shown to be the sum total of individual learning but that it occurs on a much wider level. In order to give those four issues just mentioned, namely *learning*; *problem solving*; *responsibility* and *sociality* a place within an integrated framework, we put forward the concept of 'social learning'. Social learning was advanced by a number of authors (Friedmann, 1987); (Milbrath, 1989); (Finger, 1995) to refer to the learning of participatory systems such as groups, networks, organisations and communities in conditions which are new, unexpected, uncertain, conflict-ridden and hard to predict – exactly the situations faced by those participating in experiential activities. Depending upon the quality of the experiential activity one could expect that social learning might contribute to the solution of unforeseen context problems on condition that optimal use was made of the problem-solving potential of which a group, network, institution or a community disposes.

The problem posed in this paper is whether it is possible to develop, for those using group experiential exercises, a model of social learning which could be useful to them in understanding the complex relationships existing within their groups and provide a blueprint for more focussed design of experiential exercises and a more legitimate form of assessment.

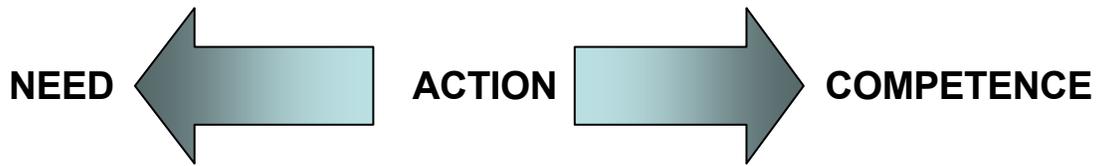
### THE FOUR AXES OF SOCIAL LEARNING

Most of the authors previously mentioned (Friedmann, 1987); (Milbrath, 1989) and (Finger, 1995) emphasise the limits of 'blueprint models' to give direction to social transformation and introduce various 'development models'. In these development models, the innovative learning of the social system is of central importance in the light of the conditions of uncertainty in which these systems operate. The careful analysis of the various development models undertaken as part of the research for this paper seems to us to lead to four basic axes along which social learning takes place:

#### Action – Reflection – Communication – Negotiation

The processes of social learning which we have identified here come about in experiential activities as simulated 'real – life' contexts. The participants involved, play a role in

**Figure 1 Transformative action between need motivation and competence motivation**



participatory systems such as groups, networks, communities or organisations aimed at solving problems and coping with challenges. In doing so they deal with resources, with meanings and with norms, whilst additionally deploying a variety of strategic, interpretive and normative competences. However, we have put forward a view that social learning is related to the processes of **action; reflection; communication and negotiation**.

These we call the four axes of social learning, each of which is characterised by a particular paradox:

1. Action moves back and forth between need and competence (Figure 1)
2. Reflection is the product of the opposition between distance and connection (Figure 2)
3. Communication swings around between unilateral and multilateral control (Figure 3)
4. Negotiation oscillates between conflict and collaboration (Figure 4)

Participatory systems such as those used in experiential learning engage in action because they experience a need, a desire, a shortage or a challenge and, as a consequence, they want to fulfil the need or to meet the challenge. The driving force for action thus comes from the discrepancy between an initial condition and an objective, implicit or explicit. In order to overcome this discrepancy, a variety of means or resources are mobilised.

In relation to this action dimension, (social) learning is to be understood as an active matter. Competencies are acquired, restructured and developed in the interaction of participant and context. The participant interferes with and gives meaning to the context, thereby making use of action theories. These are more or less explicit assumptions about how particular goals can be achieved. Not only individual participants but also collective participants can interact with the context. The context co-determines the possibilities and limitations of this action, including those of related action theories. In order to undertake experiential activities or participate in social life, individual and collective participants make use of 'participatory competencies'. In close connection with the distinction between resources, meanings and norms, we need to differentiate between strategic, normative and interpretive competencies. Strategic competencies enable people to mobilise symbolic and material resources with a view to attaining their goals. Normative competencies relate to the capacity to judge actions, events and experiences. Interpretive

competencies relate to the capacity to give meaning to the actions and the context i.e. articulate, conceptualise or represent them in a symbolic way.

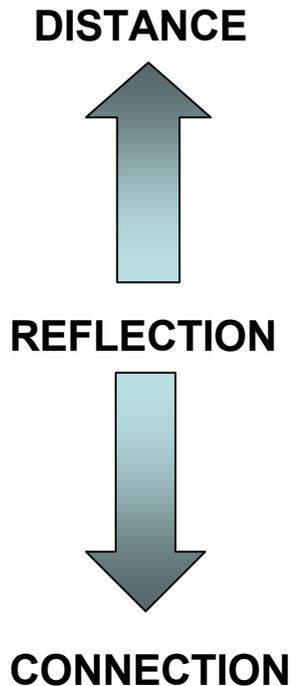
In everyday situations, all participants dispose more or less of these competencies, yet it is important to strike a balance between competence and needs, or between *competence motivation and need motivation* (Gronemeyer, 1976, p.8). ABSEL workshops have previously illustrated the fact that, the actions of the participating groups involved did not always succeed in relating the discourse concerning the structural cases of commercial injustice to concrete everyday action perspectives (Cudworth workshop Hawaii). This meant that the discrepancy between the need motivation, resulting from the observation of fundamental commercial injustice and the competence motivation resulting from competencies available to the group or the opportunities to change the situation remained too high. A real negative consequence is that in such a case, feelings of powerlessness tend to be reinforced rather than successfully challenged. On other occasions in ABSEL workshops, the participants reported that they had experienced a belief in their competency to transform things, albeit on a concrete level, or that their actions really 'made a difference'.

Kolb (1984) identified the importance of reflection in experiential activities suggesting that reflectivity is basic to action and learning and hence to social learning. Action can be improved with the help of reflexive processes. Trainers in the field of experiential learning have learned to understand reflectivity predominantly in terms of *critical reflectivity*, meaning that the participants question the validity of particular opinions, judgements, strategies, actions, emotions, feelings etc (Habemas, 1981, p.153). With respect to the actions of participatory systems, critical reflectivity is often framed as notions such as 'single loop learning' and 'double loop learning' (Argyris, 1982, p.47). In these concepts, learning is the result of placing oneself at a distance from the action and considering the extent to which the resources, strategies and goals have contributed to the outcomes. A single feedback loop implies a simple comparison of the results attained from the activity with the original objectives. If a divergence becomes manifest between the goals and results, this means that the action scenario should be altered with a view to obtaining better results. Stable contexts such as bureaucracies, trigger processes of single loop learning among many individuals and groups involved. Yet people who are used to

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functioning in such circumstances are often not well-prepared for the unexpected situations or for functioning in turbulent contexts. They are not capable of flexible adaptation to changes and continually tend towards routine-like actions. Their in-built single loop learning mechanism fails. They have not learnt to question the goals, backgrounds and basic assumptions of their actions. Learning in the context of 'uncertainty, complexity, instability, uniqueness and value conflict' (Schon, 1983, p.109) presupposes another in-built learning mechanism.

**Figure 2 Reflectivity between distance and connection**



It presupposes a second learning loop which involves, next to a simple comparison of goals and means, questioning of the goals themselves. The question is raised whether the goals are appropriate in a given situation. A negative answer to this question may give action a completely new direction.

In our research for this paper, we came to some interesting conclusions about the reflectivity of the various groups we have been involved with. Most of the groups predominantly focus on the product or the content of their

activities and pay little attention to the process. Double loop learning rarely takes place.

The consequences of this lack of critical reflectivity are (Van Rheede, 1997, p.87):

1. *That the groups pay too little attention to their internal organisation.*
2. *That the groups pay one-dimensional attention to issues of effectiveness.*
3. *That 'strategy fixation' occurs within groups, meaning that they have great difficulty in changing strategies.*
4. *That critical reflection about the strategies and the goals is lacking; therefore the groups cannot define successes and failures very well and they have difficulty in controlling the process.*

When social learning aims at collective solutions for the problems in the social context of a group or community, it should also address the need for common symbols and rituals in the lives of the participants that are involved. It is only by the reflexive and conscious creation of common points of reference for identification, that processes of social learning enable the ascription of shared meaning and significance of the collective practices that are at stake.

The third dimension of social learning relates to communication. It is not necessary to stress how crucial this dimension is for both the action and learning processes of participatory systems. Communication theory and group dynamics teach us what mechanisms stimulate or inhibit processes of critically-reflexive learning. Argyris and Schon proposed two models of learning 'model 1' and 'model 2' (Argyris, 1982, p.32). Both ways of learning relate to the processes of informal learning in everyday contexts. The dominant learning pattern in these contexts is what is called 'model 1' type. This form of action learning is characterised by the efforts of most participants to *unilaterally control* and defend the situation, the task, the others and themselves. In other words, all participants operate with their own hidden agendas and do not bring them out into the open. As a consequence, there is also little room for questioning underlying norms and values, such as the conviction that emotions and negative feelings need to be ignored and that one has to act rationally, which time and again leads to unilateral mechanisms and control. Finally, this leads to defensive group processes, to self-concealing practices and to single learning loops with limited effectiveness.

Communication experiments have time and again confirmed that this 'model 1' pattern is part of the 'everyday life-world' of the majority of the people. Yet, social learning, which means that the potentiality of a group is to be used in an

**Figure 3 Communication between multilateral and unilateral control**



optimal way, implies that these communication-inhibiting mechanisms are eliminated.

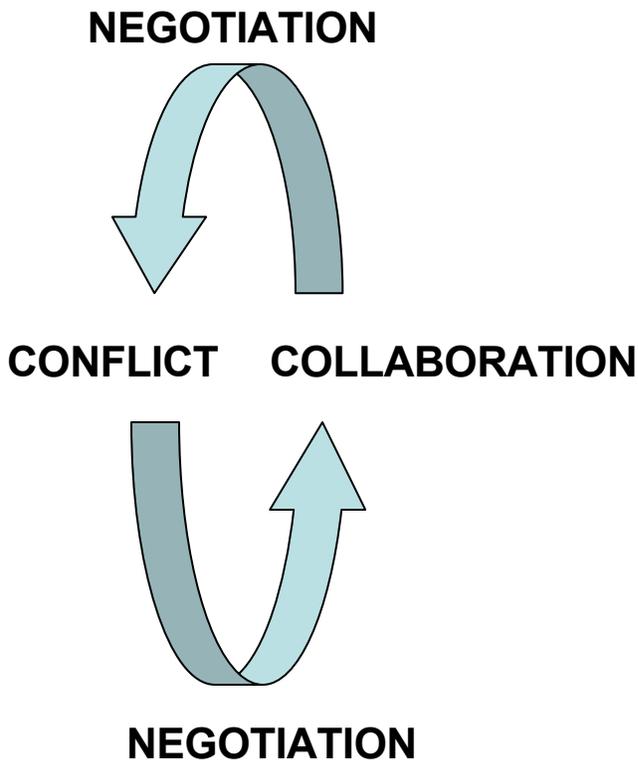
A way out is presented here by the 'model 2' type learning which, in many respects, presents the opposite communication and interaction pattern. Unilateral control of the task, the context and the participants is substituted by *multilateral control*; competitive norms are replaced by co-operative norms; the interaction climate is directed towards collaboration. All this leads to 'double loop learning' and to better results. The tension between multilateral and unilateral control is of particular significance when experts are involved. The principle of multilateral control presupposes that the complexity and uncertainty of the problems that are addressed

in social learning require the input of different perspectives and close co-operation between 'experts' and 'lay persons'.

Therefore, Røling (1995) argues that in situations characterised by uncertainty about the outcome, which at the same time are of great existential importance, science is a matter for all and thus as many people as possible should be involved in processes of problem-posing and problem-solving. This he calls the stimulation of the 'agency', meaning:

*the capacity to influence the context based upon the collective deployment of means and organisation.*  
(1995, p.36)

**Figure 4 Negotiation between collaboration and conflict**



Processes of social learning can finally be related to a fourth axis, which is about negotiation, oscillating between *collaboration* and *conflict*. Participatory systems trying to achieve particular goals are continually involved in implicit or explicit processes of negotiation, both within and without the confines of the system itself. Negotiations are efforts to reach agreement about the goals to be achieved and the means to be mobilised and as such they deal with differences in interest among group members and among the group and external participants.

All groups are conflict-ridden by nature. Conflicts can be defined as ‘the clash of oppositional forces, including ideas, persons, interests, wishes and drives’ (Smith and Berg, 1987, p.36). We often consider conflicts as negative or destructive and in doing so we miss the opportunities to take advantage of the conflict. In a recent programme in the Ukraine, our experience revealed how the confidence which a number of faculty displayed in trying to force a decision relating to University status made it possible for other faculty members to partly give up their emotional resistance to an uncommon perspective and to become involved in the process of redefining the issue under discussion.

In this example, the participants involved unknowingly applied three basic principles that enable groups to learn their way out of paradoxes they cope with:

*Go toward, rather than away from, the anxiety or fear associated with an event.*

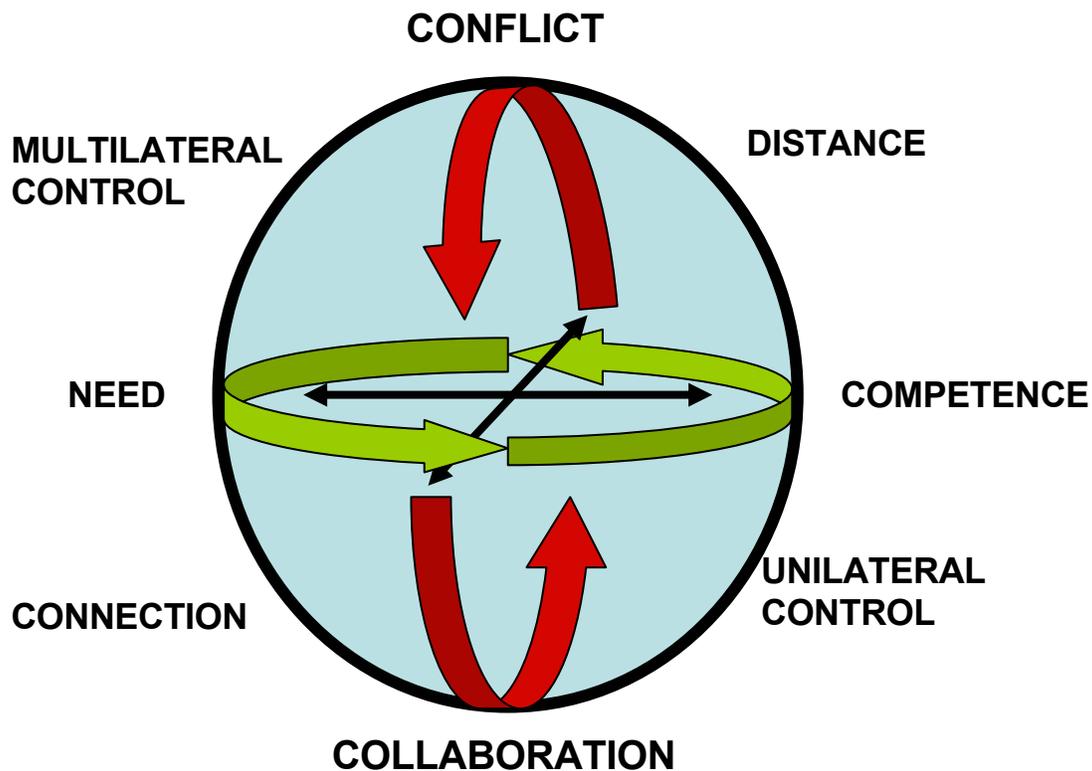
*The role of the leader in the group is one that facilitates the exploration of a full range of paradoxical tensions that arise.*

*Groups will facilitate their own movement and growth when individuals recognise the ways they use others to define themselves:*

*(Smith and Berg, 1987, p.222)*

This analysis seems to have an important exemplary function because it clarifies the fact that processes of social learning result from coping with paradoxes and contradictions rather than from neglecting them. Yet, we should also remember that any attempt to strike a balance between collaboration and conflict is at the same time a very delicate matter.

(Figure 5), which we call ‘The Sphere of Experiential Learning’.



DEVELOPING A SYMBOLIC MODEL OF  
SOCIAL LEARNING

The research for this paper has taken us along a winding path to the point where we feel that the process of social learning within groups in experiential activities along the axes previously discussed can be integrated to produce a symbolic model of experiential learning

Yet, even having reached the point of proposing a symbolic model of Experiential Learning for discussion, we sense that there is still something missing. Action along the four axes does not 'just happen' – there is a human drive required to make action effective.

It is the collective efforts of the participants involved in the experiential activities that will 'make the difference' when creative processes along those axes are matched with aspects of power and issues of responsibility. But teaching and learning are still a human condition and the whole process of experiential learning can be enhanced or inhibited by the various roles individuals involved can play and their enthusiasm and empathy for those roles. **We believe, therefore, that at the heart of all experiential learning are three basic issues – CREATIVITY – POWER – RESPONSIBILITY.**

The first issue is *Creativity* such that the participants involved try to develop creative answers to the challenges they cope with. In doing so, they inevitably deal with issues of power and with issues of responsibility. We suggest that this *creativity* has to do with striking a dynamic balance alongside the four axes (action – reflection – communication – collaboration), with respect to the four paradoxes of experiential learning (need-competence: distance-connection: multidirectional control – unidirectional control: conflict – collaboration). There is no 'Archimedean Point': the balance or configuration will differ from group to group, from situation to situation and from context to context. This, we believe, is the true meaning of the experiential learning process. The dynamic balance is the result of careful and participatory scrutiny. It has to be found time and again while taking into consideration the various contextual, situational and group-related elements which are never the same.

A second issue is about *Power*. Cervero and Wilson (1994, p.14) put forward three features of power:

1. *It exists as a feature of certain enduring relationships.*
2. *It always involves reciprocity.*
3. *The outcome of the power relationship is always contingent.*

They argue that the capacity of participants to act (power) in interactions is affected by different social and organisational relationships they represent in the interaction, with class structure and experience also contributing. They suggest that power in interactions is constantly being negotiated whilst the understanding of power, points to the personal responsibility

and personal contribution of each participant within the system they are operating in. They believe that experiential learning develops within this background of possibilities and limitations.

The issue of power brings us to our final issue which we want to consider, namely '*politics of social learning*'. In the processes of experiential learning, issues of *social responsibility* are always interwoven with problem solving and learning activities. Both with respect to the outcome and to the process, the participants share a responsibility for what they do being right, just, human etc. Of course these issues relate to all interactions, but we draw special attention to them here because experiential learning is often legitimised exclusively in terms of efficiency and effectiveness, whereas questions of responsibility are put between brackets. The fact that today they are not easily thematised is significant for the times we live in.

Life politics is about the consequences of the way in which we, as human beings, have the power to transform ourselves and our environment. More and more it is becoming clear that there are limits to our processes of emancipation, or, in other words, that we have to consider self-actualisation in the context of global independence. Therefore we have to develop ethics concerning how to live in a 'post-traditional' order. We think this dimension is also of crucial importance to social responsibility and experiential learning.

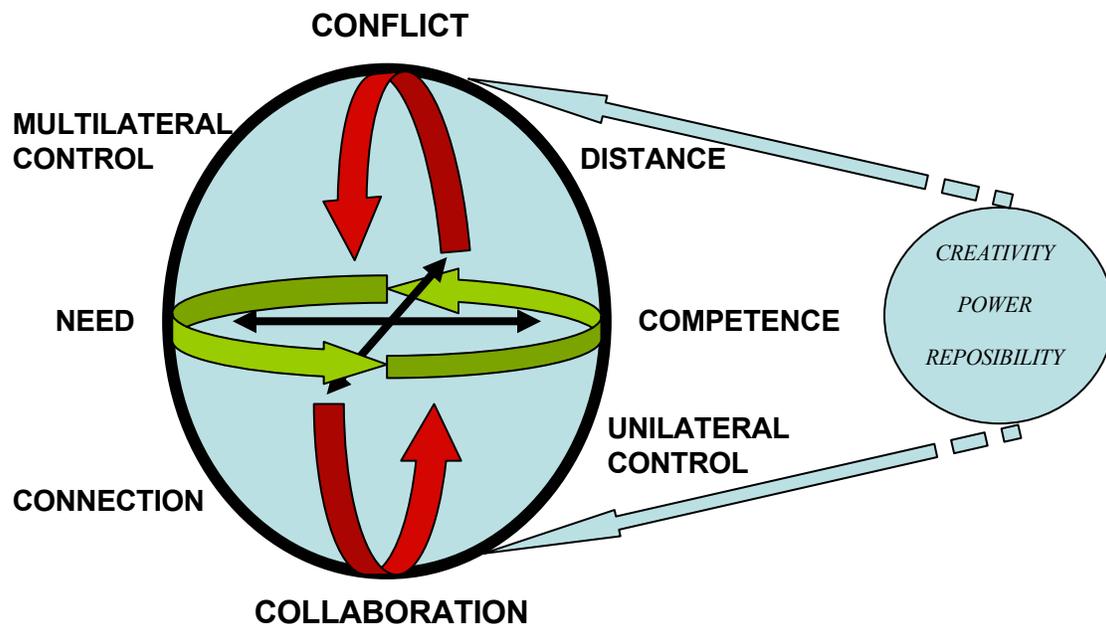
This brings us to our final conclusion shown in Figure 6, that the symbolic model which we have proposed in Figure 5 is incomplete. For without the influence and driving force of *creativity, power and responsibility* little success will be achieved in our experiential activities and the sphere will remain dormant.

Thus the difficulties of providing a formal assessment to experiential activities, discussed at the beginning of this paper, lies in the daily practice of those activities which we have shown as not being implemented from any single pre-formulated theory or approach. Each successful experiential activity emerges, forged by our actions as teachers, trainers, students and trainees as we interplay with each other, under the influence of a large number of conditions.

**Postscript**

The concept of a Sphere of Experiential Learning is a figure of our imagination and as far as we know 'unique'. It has been researched and developed as entirely as a paper for ABSEL 2005. We hope that, like all good papers, it provokes both a challenge and a discussion on the concept and assessment of experiential learning. Whether or not it does, we must wait and see. **Nevertheless in any final analysis, we have to consider to what extent the creative and clever processes we are involved in also contribute to more just social relationships and to a sustainable society.**

**Figure 6 A Symbolic Model of Experiential Activity**



## BIBLIOGRAPHY

- Anderson, P., and Lawton, L., (1992) "Dominant Personality Types and Total Enterprise Simulation Performance" *Developments in Business Simulation and Experiential Learning*, ABSEL, Volume 19 Las Vegas USA.
- Anderson, P., and Lawton, L., (1997) "Performance on a Total Enterprise Simulation. What does it represent?" *Developments in Business Simulation and Experiential Learning*, ABSEL, Volume 24, New Orleans, USA.
- Argyris, C., (1982), "Reasoning Learning and Action" Jossey Bass, San Francisco, USA.
- Belanger, P., (1994) "Lifelong Learning: the dialectics of lifelong educations" *International Review of Education* 40 (3 – 5): p. 353 – 381.
- Brookfield, S., (1986), "Understanding and facilitating Adult Learning" Open University Press, Milton Keynes, England.
- Carr, W. and Kemmis, S., (1986), "Becoming Critical - Education, Knowledge and" *Action Research* The Falmer Press, London, England.
- Cevero, R. and Wilson, J., (1994), "Power and Problem Solving" In: Wildemeersch, D., *Paradoxes of Social Learning: towards a model for project orientated group work*. Roskilde University Press, Denmark.
- Cohen, L., and Manion, L., (1992), "Research Methods in Education", 3rd Edition Revised Routledge, London, England.
- Cudworth, A.L., (1998), "The Unemployment Game" Conference Workshop, ABSEL, Hawaii, USA.
- Dickenson, J., and Gentry, J., (1990), "The need to measure variance in Experiential Learning and a new statistic to do so. *Developments in Business Simulation and Experiential Learning*, ABSEL, Volume 26, Philadelphia, USA.
- Finger, M., (1995), "Adult Education and Society today" *International Journal of Lifelong Education* 14(2): p.110 – 119.
- Friedmann, J., (1987) "Planning in the public domain" Princeton University Press, Princeton, USA
- Gentry et al (1998) "The second component to Experiential Learning – a look back at how ABSEL has handled conceptual and operational definitions of learning" *Developments in Business Simulation and Experiential Learning*, ABSEL, Volume 25, Hawaii, USA .
- Gronemeyer, M., (1976) "Motivation und Politisches Handeln" *Grundkategorien politischer Psychologie*, Hoffmann und Campe, Hamburg, Germany.
- Habemas, J., (1981) "Theorie des kommunikativen Handelns" Suhramp, Frankfort, Germany.
- Jarvis, P., (1987) "Adult Learning in the social context" Croom Helm, London England.
- Kade, J., (1993) "Aneignungsverhältnisse diesseits und jenseits der Erwachsenenbildung" *Zeitschrift für Pädagogik* 3: p.391 – 408.
- Klabbers, J.H.G., (1994), "The 25<sup>th</sup> Anniversary of ISAGA: The orchestration of Organisational Complexity" in Patton, G., Davis, D., and Govahi, G., (1998) *Predictive Models of Learning: Participants satisfaction of Experiential Exercises in Business Studies*
- Kolb, D., (1984) "Experiential Learning: Experience as the Source of Learning and Development" Prentice – Hall, Englewood Cliffs, New Jersey, USA.

## Developments in Business Simulations and Experiential Learning, Volume 32, 2005

- Marsick, V., and Watkins, K., (1990) "Informal and Incidental Learning in the Workplace" Routledge, London, England.
- McNiff, J., (1988), "Action Research: Principles and Practice" Routledge, London, England.
- Milbrath, L., (1989) "Envisioning a sustainable society. Learning our way out." SUNY Press, Albany, New York, USA.
- Peach, B., and Platt, R., (2000) "Total Enterprise Simulations and optimising the decisions set: Assessing student learning across decision periods" Developments in Business Simulation and Experiential Learning, ABSEL, Volume 27, Savannah, USA.
- Roling, N., (1995) "Constructivisme en sociale interventie." Sociale Interventie 1: p.5 – 13.
- Schon, D., (1983) "The Reflective Practitioner" Basic Books, New York, USA.
- Smith, K., and Berg, D., (1987) "Paradoxes of group life" Jossey Bass, New York, USA.
- Trow, M., (1970), "Methodological Problems in the Evaluation of Innovations in Wittrock, M., and Wiley, D., (Eds) The evaluation of instruction" Holt, Reinhart and Winston, New York, USA.
- Van Rheede, A., (1997) "Natuurlijk leren balanceren. Een onderzoek naar organisatie, strategie en leren bij lokale natuur-en milieugroepen" Wetenschapswinkel, Nijmegen, The Netherlands.
- Welton, M., (1995) "In defense of the life-world" SUNY Press, Albany, New York, USA
- Wildemeersch, D., (1991) "Learning from regularity, irregularity and responsibility" International Journal of Lifelong Education 10(2): p.151 - 158