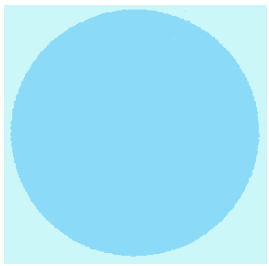
Innovation Transfer and Study Circles

edited by
Paolo Federighi, Vanna Boffo

Edizioni ETS

The central theme of this study regards the transfer and absorption of innovation in small businesses. The problem concerns not only the relationship between enterprise and basic or applied research but also involves the opportunity for the entrepreneur and company employees to acquire the knowledge to permit the introduction of new technology and new solutions to the firm.
How can a condition of virtuous and circular creativity be operated in a small or medium sized firm to identify the direction of transfer of innovation and thus increment an increasingly dialoguing exchange of knowledge, skills and capabilities staring from the sharing of learning?
The active dialogue, flexibility experienced and the birth of new ideas, produced by the contagion of participants in the Circle Studies, on the one hand, can become transfers, changes and novelty by experience and action, yet on the other, sustain the sense of conversation between peers and care for knowledge and the individual in the work place, the vehicles of a plural and jointly responsible citizenship that is open to the next person and the rest of the world.

Contributions by: Teresa Basilico, Vanna Boffo, Gabriella Campanile, Paolo Federighi, Klas Lénberg, Ekkehard Nuissl von Rein



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CONTENTS

INTRODUCTION

Paolo Federighi, Vanna Boffo

1. *Study Circles and Innovation*

The problem for which we want to contribute a solution with this study concerns the transfer and absorption of innovation in small businesses. The problem concerns not only the relationship between enterprise and basic or applied research but also involves the opportunity for the entrepreneur and employees to acquire the knowledge which will permit new technology and new solutions to be introduced into the firm.

This problem is faced in choices of a strategic nature (placement in new markets, adoption of new financial strategies, relocation of production etc.) and also before soft innovation, introduced by firms in a permanent way in the form of small improvements achieved thanks to the creativity of employees (modification of a piece of machinery, a different organisation of work, etc.).

It's about processes founded on learning, both individual and organisational. And, as we are talking about innovation, this learning is based more on the capacity to create new knowledge than on the transmission of what is already known and often structured into curricular and teaching programmes. This type of learning is not developed in traditional training institutions. It takes place within networks of dynamic learning – according to the definition given by Reich in his *The Work of Nations* – and represents one of the factors in the growth of Silicon Valley. Like any type of training activity, however, networks, and especially strong networks, are discriminatory and barely accessible to outsiders.

The challenge to identify the type of educational measure and action to encourage access to dynamic learning networks by those seeking innovation needs to be met in both public policy and by the teaching profession.

The hypothesis tackled in this study is that a possible solution might be the Study Circle, or rather in the updating (or return to the original) of the model introduced in Sweden by Olsson at the end of

the 19th century and which can also be considered as the prototype of Circles of Quality in the firm.

The Study Circle constitutes the weak network of connections of mutual learning and an alternative pedagogic methodology to standard training models (courses, seminars, group work, etc.). Here we are more on the terrain which Gramsci called "the self-teaching society", re-purposed by De Sanctis is his work on "*associazionismo*", the tendency to form associations.

The creation of this type of education action calls for teachers capable of organising processes of mutual learning and also of making useful and necessary knowledge available to a network. The Study Circle for the transfer of innovation has little to do with general, preparatory or impartial education. On the contrary, it is a strongly result-oriented training route: learning to innovate – immediately – the quality of production and work.

It involves learning solutions that no one has yet introduced.

Here, we need people who are capable of building and working networks and making people with the know-how to help build *ad hoc* relations with the problems faced by the Study Circles join the network.

These are the matters our publication aims to tackle.

The work is based on experiments carried out in Tuscany, the Marche and Gothenburg. Given the scarcity of empirical material regarding Study Circles for Innovation, those chosen for the experiments were the nautical, tourism and mechanics industries. This allowed us to make use of concrete experiences from which to study both feasibility and sustainability, including the sustainability of the hypothesis. Furthermore, within these experiences, special *focus* was given to the observation and analysis of the training of two figures in particular: the *tutor* and the expert.

2. *Study Circles and Training in the Workplace*

The view with which the reflection, undertaken here, was tackled at the end of the planning work in the field, is purely pedagogical and, as such, the actions carried out by the participants of the circles were observed and new reference figures for a Study Circle for firms were diagnosed. From one side, the actions, with texts by Teresa Basilico, Gabriella Campanile and Klas Lénberg, who followed the work of the EDA EDU Project at close hand, and on the other, the subjects investigated by Ekkehard Nuissl von Rein and by the writer.

The essay by Paolo Federighi is a theoretical-pedagogical key to interpreting the training process underlying the Study Circle in the firm. The work is therefore an analysis of *good practice* or *best practice* in adult education and vocational training, given the high degree of satisfaction experienced by the circle participants. *Good practice* is a social and training action or experience which brings about a significant improvement in the environmental, personal, domestic and occupational well-being of the individual and others.

The training methodology of the Study Circle in small and medium sized firms has shown that the best means of transferring creativity and innovation is by linking it to the environmental and social well-being of the workplace. In a certain sense, the Study Circle has put into practice, by transforming a method into *good practice*, the idea that training, and the development of humans in general, is the cornerstone for the pedagogical construction of mankind and his social environment which, in this case, is the work place. Human development derives from culture influenced by people. New culture is created by reciprocal and dialogical exchange and it is this interaction of dialogue and well-guided conversation, the virtuous reflexivity on the actions of the individual as a person but also in the work place that constitute the grounds for new action, innovation. The root of innovation lies in subjectively learning a practice which will then be applied socially and collectively. Innovation only takes place together, by transfer, by transformation from an initial creative deed; but before it can become a collective deed of exchange, of acquaintance and of communication, one further step is required. Training gives new form to the original; the person changes and becomes a new person after undergoing training. Even the practices that become *good practices* must undergo a transformation, in the context in which exist, in order to offer the person the opportunity to learn more effectively and acquire better *know-how.*

The Study Circle creates the training environment so that the participants can put into practice the *good practices* of training flexibility. In the work place, too. However, in order for the training to be carried out and transform awareness into creativity and innovation, an appropriate environment is necessary. The participants, the *tutor* and the expert, as well as the person planning the training on the basis of the needs of the firm, must build the best possible framework to enhance communication and conversation. For this reason, the training of these people must be appropriate and include technical aspects as well.

The *curriculum* for training professionals such as *tutors*, must be both specific and general; they must not only have appropriate teaching knowledge, communicative and organisational skills and mental and relationship flexibility but also the disciplinary and cognitive knowledge of the enterprise world and its products. Even the figure of the expert, whilst differing from the other two, the planner and the *tutor*, must adapt to the needs of the Circle in which his/her know-how is being applied. The expert will be able to respond to the needs of the transfer of innovation if he/she is able to intercept the needs of the circle and understand the direction the training route needs to go; simply instructing facts is not sufficient. The *tutor* must work the dialogue between the needs and the principles, between the needs for the transfer of knowledge and the knowledge itself. The *tutor*, and also the expert, must be able to guide learning so that it becomes *new learning* capable of transforming new knowledge into new conditions of knowledge. This is possible when the communicative capacity and the reflexive knowledge of the interpretive capacity displace attention from one item of knowledge to another, allowing the trainers, foremost, and the circle participants, thereafter, to see *what they already know* in a new light, being capable of *deciphering* and *decanting* the new arising in a changed environmental context or simply giving a new vision of the experience made.

Lastly, a further thought to retrieve a further pedagogical opportunity, represented by Study Circles in firms, for the vocational training world and, at the same time, for enterprises transferring products, if only from the manufacturer to the consumer, whether they be products, hand-made goods or services.

The training model of the Study Circle proposes, by its very nature, the exchange of the gift of the word, as well as that of knowledge. The gratuitousness of the training throws new light on the ethical dimension of the exchange forming the basis of relations between human beings and also between the participants of the circle and their trainers, even in businesses which, as we all know, work to make a profit. The Study Circle activates a model of ethical training based on the exchange of gifts. The exchange is in the gift of the word in dialogue, but also in mutual listening and the capacity to orientate towards others. The exchange of the gift is in the transfer of knowledge, from the expert to the participants in the circle, later to become skills in new contexts. The exchange of the gift is activated in the very method of the Circle, not lavishing facts but creating them with the dimension of the community.

It is not a paradox, but it is what becomes evident from deeper analysis of the *good practice* of the Circle. The category of the gift is subject to the proposal to transfer goods/facts and their transformation into know-how/skills. Remember, only incidentally, how the model of the exchange of gifts is considered anthropologically as an interpretive key to understanding the birth of modern society. We may recall, *Essai sur le don* by Marcel Mauss, and all the works that followed. Meditation reminds us of the sense of direction activated by any training practice, even *good practice.* A practice is never only a practice but rather a bearer of a vision of the world and, in the work place, it is necessary and important, especially in the globalised world of goods, markets and men and women, to understand the sense to which the worker is responding with his/her actions, even those of training.

This is why the Circle of Study sustains, because it proposes it, a different vision of *homo economicus.* The challenge to take up this new vision; because every transfer of innovation and know-how in the work place cannot fail to be of service to human beings and to the creation of a human being worthy of his or her own development.

3. *Study Circles: Some Conclusions*

In conclusion, projecting, at this point, the final considerations which may emerge from an analysis of the contributions to this work, several key points can be summarised and around which my thoughts have revolved, not in the claim of being by any means exhaustive, but in the hope of exposing the research to further enrichment and critical-reflective transformation. From what I have already stated briefly, the training model of the Study Circle could be a valid and sustainable alternative to other models of training for creating the virtuosity of the relationship between people, actions, needs and *good practices.* This circularity can lead to creating *new* working conditions, *new* learning contexts and *new* educational relationships to render the spirit of awareness in the firm *new* and to train for a means of production which, only by the transfer of know-how and skills, with innovation, exactly, can build trust, hope and awareness of the self, of others and of the humanity of the worker in the work place.

1. Demand for Study Circles for Innovation exists. The ease with which the Study Circles were promoted in the nautical, tourism and mechanical industries is proof of the demand. The willing par-

ticipation by workers in Italy in the training activities is further confirmation.

2. The efficacy of Study Circles for Innovation mainly depends of the type of participant. The condition of success is that there must be bearers of problems with skills and power to adopt innovative solutions.
3. The existence of result-orientated Study Circles is the condition for considering the costs as an investment.
4. The size of the investment is – in theory – connected also to the size of the results. In *knowledge intensive*, medium and large businesses, analogous processes are often connected to the relationship between lines and offices of research and planning, as well as directly affecting first and second level quality. In these cases, investment in innovation transfer is heavy and an integral part of a system of management of the anomalies and development of products, organisation, processes and *marketing*. Nevertheless, and considering only the segment comparable with Study Circles, the investment is much greater than that sustained in the experimentation.
5. Small businesses need external intervention (public policies, interprofessional grants, etc) that permit economy of scale by operating on *clusters* of firms.
6. The creation of Study Circles for Innovation aimed at small businesses depends on the existence and on the action of a promoting body that is in a position to make the demand be expressed, that is to say, organise routes to defining the issues on the basis of which the know-how resources can be organised to build solutions.
7. For the creation of Study Circles for innovation, four different roles are necessary:
   - Study Circle promoters,
   - the expert in analysis of the demand,
   - the *tutor*,
   - the specialist.

   These roles cannot have the same profile.
8. The Study Circle for Innovation promoter is the person in a position to organise the expression of demand for routes to training for innovation. These conditions are associated with a person who is in direct contact with entrepreneurs (various types of services to business). In addition to working on the expression of demand and its organisation into Study Circles, the promoter must be able to carry out an initial analysis to identify the problem to be tackled.

9. The role of the expert is the analysis of the issue and the identification of specific aspects on which to develop processes of innovation transfer. Innovation supported by Study Circles is not systematic. It is more focused on the particular aspects arising and can be effective as a short training action.
   The success of the future Circle depends on the level of definition of the demand (if the issue regards the innovation of *testing*, are the sensors or the interface of interest?) These processes of defining demand can also be postponed until the initial phase of the study circle and managed by the *tutor*; there is a risk, however, to the degree of pertinence or of prolonging the duration.
10. The role of the *tutor* does not differ greatly from that of the *tutor* of Study Circles. The initial function of the *tutor* is to work with the expert in analysing the demand from businesses in order to ensure the practical working of the network of learning later.
    His/her central duty is of a methodological type and, in the first instance, concerns the management of the processes and the construction of contexts which encourage learning by means of knowledge-exchange networks. For this purpose, the crucial function is to place the group in a condition to use the specialist in a functional way.
11. The specialist is a person chosen by the Study Circle for his/her ability to bring useful know-how for the solution of the issue. He/she is chosen by the expert for the added value they can produce. The specialist is not a trainer nor an expert teacher in a sector. He/she is a person possessing innovative knowledge in a given moment. This knowledge is made accessible to the group on the basis of the pedagogical device for which the *tutor*, and not the specialist, is responsible.

Florence, 7 February 2009

CHAPTER I

FROM THE TRANSFER OF KNOWLEDGE TO INNOVATION: THE STUDY CIRCLE MODEL

Teresa Basilico

The Region of Tuscany first introduced idea of the Study Circle in 2000, the first region in Italy to make use of the training instrument based on the model widely used in other parts of the world such as the United States, Canada and Scandinavia. Since its introduction, the use and development of the Study Circle has continued to date. Over this time, the project *Idee in Rete* (*Networking Ideas - Regional Network to Sustain Study Circles*), was conceived to aid the growth of non-formal education in Study Circles capable of contributing to the creation of a training structure to guarantee the rights of every individual to life-long learning.

The Study Circles created so far have been actively enjoyed by many citizens in Tuscany and have seen the participation of many adult uses who would never otherwise have had the opportunity to participate in a course of learning. The Study Circles carried out over this period of time have enabled the activation and construction of social networks of solidarity and have generated the exchange of *learning* between citizens and the formulation and definition of a new way of training, centred on the needs of the users and aimed at empowering participants in deciding their own route of learning, venues, methods, content and timing for each individual's learning and knowledge.

The results compounded in recent years, within the Study Circle system, have enabled the examination and articulation of this training model and its projection into a new dimension; *of* and *for* businesses.

The pedagogical and training features of the Study Circle model make it a preferred instrument in the spreading of non-formal adult education. The Study Circle, because of its features of *flexibility*, the *personalisation of the course*, *the contextualisation of action* and the *management of timing*, is an instrument which allows the needs for training and research and demand for new knowledge of the world of business to be met. The determining role of the *network* in the process of the generation and transfer of knowledge within the Study Circles has encouraged us to believe that this instrument could be

used in both *research* as well as in the *transfer of innovation* between SMEs belonging to corresponding productive sectors.

With this idea in mind, the Association "Idee in Rete", with the partnership of the Regions of Tuscany and Marche, E-Education S.p.a., EARLALL (European Association of Regional and Local Authorities), EAEA (European Association for Education of Adults) and Gothenburg Folk High School, promoted and accomplished the *EDA EDU Project - System Actions for Study Circles in Continuing Education*, funded by the Leonardo da Vinci European Programme.

The aim of the project was to start up a transnational action for testing Study Circles as a possible instrument for setting up networks as well as research laboratories for the generation and activation of the transfer and absorption of innovation between the firms involved. This required specific training actions aimed at the development of new knowledge and skills for the people involved in the Study Circles for SMEs, that is to say the *tutors* and experts. The activities of the project involved, at a European level, staff working in the Professional Training and Adult Education system as tutors and experts as well as entrepreneurs and managers of the SMEs interested in the transfer of innovation.

The general aims of the EDA EDU project were therefore those of introducing the Study Circle model as a slender, flexible, low-cost training instrument within the SMEs' systems of continuing education and of training professionals, such as the tutor and the expert, with the specific skills required by the use of Study Circles in SMEs.

In line with the aims and priorities of the Leonardo da Vinci programme, the project has, on one side, encouraged the identification of a common model of skills for experts and tutors for use in non-formal, continued vocational training and, on the other, the analysis of the model of the Study Circles as an instrument to aid innovation processes in entrepreneurial contexts.

During the process of identifying the training model, the training activities carried out by the experts and tutors of the SME Study Circles took on great significance. For these professional figures, "on the job", attended and distance training was given where they could, themselves, carry out the tasks required for the implementation process of the Study Circles, and where the development of the skills necessary for the functions of the tutor and the expert in a company environment could be encouraged.

This training, a blended course of 42 hours, was participated by 12 people; 6 tutors and 6 experts, from the countries and regions in-

volved, the Regions of Tuscany, Marche and Västra Götaland. The course was divided into 10 hours in the classroom, 10 hours on-line distance study and 22 hours of coaching, the latter being carried out during the staging of the Study Circles, thus enabling experts and tutors to put into immediate practice what they had learnt under the supervision of their coach.

The use of e-learning for the training course was, in itself, innovative and on-line materials and instruments were specially prepared for Study Circle staff.

During the training course 6 Study Circles were set up, 3 in Italy and 3 in Sweden, each of 22 hours and which saw the participation of 26 SME entrepreneurs/company employees.

The firms were identified for their sphere and sector of production within the common strategic interest of the European regions involved, in Italy, Tuscany and Marche and in Sweden, Västra Götaland. The firms involved were from the tourism, mechanical and nautical industries. The transnational nature of the project enabled the implementation of an exchange between the firms/entrepreneurs taking part in the Study Circles. Two Study Circles were deployed in Tuscany, one involving 8 entrepreneurs/employees from the tourism industry and the other involving 2 entrepreneurs/employees from the mechanical industry; one Study Circle in the Marche with 4 entrepreneurs/employees from nautical sector; three Study Circles in the Region of Västra Götaland, Sweden, one for each of the 3 sectors, involving 4 entrepreneurs/employees from the tourism industry, 3 entrepreneurs/employees from the mechanical industry and 5 entrepreneurs/employees from the nautical industry.

The experiment, broken down into these groups, brought significant results which enable the affirmation that the Study Circle as an instrument is capable of strengthening levels of participation and encouraging the construction of networks, essential elements for guaranteeing the transfer of knowledge, as well as sustaining the transfer of innovation in entrepreneurial situations.

As regards the professional figures, the experience also enabled *focus* to be made on the specific skills, role and function of the expert and the tutor for the SME Study Circles and their management, aimed at the transfer of innovation. It was clear from the Study Circle experience that the complex and articulate roles of the professional figures require management, technical and relational skills that are difficult to develop outside the context of the firm itself.

CHAPTER II

INNOVATION TRANSFER AND STUDY CIRCLES FOR SMALL AND MEDIUM SIZED FIRMS

Paolo Federighi

1. *Introduction*

The processes of generation, transfer and absorption of innovation in firms, and especially those of small and medium size, can be encouraged by the use of the Study Circle model.

The term "Study Circle" is applied to activities of self learning founded on the expression of demand for learning by the participants, united into small groups, who make use of a *tutor* or experts for a short period of time and with the aim of receiving training regarding a theme chosen by the participants themselves. The distinction of Study Circles lies in the fact that they do not offer lessons like other instruments of learning, where lessons may be good, interesting, communicative and participated or otherwise. The Study Circle is completely different and its major purpose is the promotion of *networking* between people with problems to resolve, experience to exchange and projects to accomplish. Another use is to put these people in contact with other people, business people, suppliers, researchers, clerks and officers of public bodies and people with the experience and knowledge needed for solving the problems being faced and for establishing opportunities for collaboration.

This working theory is based on the observation that innovation is non other than the improvement and development of the products, processes, organisation and *marketing* of a firm. It regards not only radical changes but also the milder ones which accompany the normal development in production and which require the conception, definition and deployment of new solutions.

The processes accompanying innovation involve learning for both individuals and for organisations, where the dynamics see the use of numerous players cooperating in the generation, transfer and absorption of new ideas. This cooperation takes place within networks of relationships involving a number of participants. The richer and articulated the possibility to weave networks of relationships, the greater the results for the members. In this sense, the working theory consid-

ers the opportunity to make use of Study Circles as a form of organisation that is able to provide for the need to exchange knowledge between players who do not participate in the natural, permanent and strong networks (centres of research, suppliers, consultants, trade associations etc.) to which a firm belongs.

Innovation is fuelled by learning as well as by research and learning by means of network membership is a condition for learning in adult life.

2. *Innovation Transfer and Educational Actions*

Innovation in the firm is always accompanied by group and individual learning processes manifested by means of the transformation or simple improvement of certain components of the activity of production. These processes are – basically – always supported by educational actions. It is the quality of these actions that determines the content and rhythm of innovative processes and the very opportunity to conceive them. The fact that a firm makes the right choices from a financial and market point of view is encouraged, if not determined, by the quality of the educational actions available.

In the face of the need to innovate, the type of educational action capable of bringing added value varies according to the routes chosen.

The, so to say, linear model, based on three phases:

research > transfer > absorption,

can also rely on traditional models of educational action. Where a firm has defined, perhaps through basic or applied research, the element of innovation to be adopted, resorting to such models, even those of a transmission type (lightened to a greater or lesser extent by active methodologies), has its own place.

Innovation is not limited to the simple transfer of the results of advanced research towards (*hard innovation*). In addition to this, *soft innovation*, the type of innovation which simply says «do something new or something old in an innovative way» should also be considered[1].

But producing something new is not enough for it to be considered innovative. The results need to be adopted by an organisation, a community or a system in order for them to take on a meaning or express added value. Kearney, on this matter, states that «it is only when

[1] Guthrie H., Dawe S., *Overview*, in Dawe S. (ed.), *Vocational Education and Training and Innovation*, Australian National Training Authority, Adelaide 2004, p. 10.

the 'make something new or in a different way' is sold or put into practice in the community that it becomes 'innovation'. Furthermore, his definition of innovation implies that for it to be considered such, an innovation must *add value* to a commercial operation or be useful to the community where it is being applied»[2].

In this case, the processes of innovation depend on complex actions whose management takes place entirely within the firm. If we examine the process of innovation from its origins as a problem and a need, through the specification of a response to the introduction of the change, the process can also be represented as a linking together of a series of educational actions involving various players in the firm and based on their powers of analysis, creativity, retrieval and adaptation of the new know-how required. These are processes which, even when they involve a sole trader, are always based on the capability and opportunity to manage collaborative relations and share information both in- and outside the firm (suppliers, competitors, partners).

From the educational point of view, this process can be analysed in terms of a knowledge building trail, winding between a series of educational actions of various kinds. The features of this trail vary according to whether the innovation is the outcome of improvements made within the firm (in this case, education can be of a collaborative kind, between employees) or imposed by markets, competitors or legal standards (in this case, education will aim at acquiring existing know-how from elsewhere and producing the necessary adaptations for the needs of the firm) or whether the innovation is the result of the capacity to render existing knowledge obsolete and to be ahead of change (here we face complex actions which involve the capacity to promote and manage forms of applied research).

In all these cases, educational actions of a formal, structured type are only effective when the innovation to be introduced has already been determined and there only remains to prepare for its absorption within the firm. What prevails and characterises a large part of the educational actions from which this process depends is their informal nature; that is to say, they are bound to the capacity and opportunity of the people involved to manage peer relationships within the knowledge exchange networks to which they belong.

When we speak of transfer of innovation we necessarily refer to processes of *external innovation,* where external agents carry out the

[2] Kearney G., *How Businesses Innovate Today and What That Means for the Workforce*, in Dawe S. (ed.), *op. cit.*, p. 60.

role of bearers of some type of innovation (of processes, products, organisation or marketing). *External innovation*, however, does not exist in isolation of the dynamics of *internal innovation*. *External innovation* is a complement to *internal innovation*, the processes of innovation developed within any organisation by means of the management of the improvement of the quality of services and goods produced. These are processes involving not only the Departments dedicated to research and innovation but all the workers in an organisation. They generally explode when an organisation faces everyday errors or anomalies or in the light of new training demands, new markets and new competitors. *Internal innovation* is greatly fuelled by the tacit knowledge possessed by every organisation and which can give life and form to tacit[3] or s*oft innovation* «based on intelligent, ingenious and useful ideas that anyone in the organisation can have»[4].

The transfer of innovation should therefore be read and planned in the framework of a close connection between the two dimensions, interior and exterior.

In the second place, innovation should be considered in the framework of the educational ecosystem, that is to say its relationship with the group of places and processes which produce learning and economic and social development in the context considered. This means taking into consideration the fact that «the environments which encourage interactive and cooperative learning and innovation processes offer better conditions for competitiveness and for socio-economic development. A complex group of social institutions, habits and relationships takes on a new role when their synergy stimulates processes of growth and change […]. The economy and sociology of innovation, just like economic geography, underline the role of spatial/geographic proximity in the spreading of knowledge, especially where tacit knowledge and innovation are concerned. This proximity, which is also cultural, institutional and inter-personal encourages the interaction and exchange of skills and knowledge between individuals, firms and other local players. Innovation is stimulated by a re-combination of the different bases of knowledge, in a process of reciprocal learning»[5]. In our

[3] Tudor R., *Formal and Tacit Innovation*, in «Creativity and Innovation Management», 1, 2001, pp. 1-2.

[4] Leonard D.A., Sensiper S., *The Role of Tacit Knowledge in Group Innovation*, in «California Management Review», 3, 1998, pp. 112-132.

[5] Maciel M.L., Albagli S., *Informação e desenvolvimento: conhecimento, inovação e apropriação social*, UNESCO Office Brasilia, Instituto Brasileiro de Informação em Ciência e Tecnologia, UNESCO Brasilia 2007.

case, the proximity factor must be read both in its local dimension as well as in respect to the virtual space drawn by the network of relationships through which ideas and products circulate.

3. *Strong Networks and Weak Networks*

The theory from which we move is that these processes, studded with informal and non-formal educational actions, can be, at least in part, facilitated (especially in small firms) by the activation of Study Circles oriented to creating links with bodies outside the firm.

The growth of a firm is determined by its membership of different social and learning networks. Motivation, information and the acquisition of new learning takes place in a systematic way within such networks. These are networks between equals, that is to say, between entrepreneurs and workers from different firms interested in the exchange of knowledge and experience, between firms and suppliers, usually for the development of products and services supplied, between firms and institutional players and between firms and centres of research or experts.

In this sense, networks are a group of links between one group of people and another, whose characteristics can be used to interpret the learning processes of the people themselves involved[6]. The *network society*, is a typical feature of modern society, increasingly organised into open and horizontal networks[7]. This is a society where the increasing differentiation and division of work requires new mechanisms of control and coordination between the hierarchies and the market, replacing traditional bureucratic organisations.

In the *network society*, the benefits vary according to the variety and intensity of the links and the quality of the networks of membership. These, according to Schenk[8], depend on factors such as:

- the personal position in the network;
- the features of the network (inter-personal, functional).

The personal position in a network is mainly connected with the

[6] Jütte W., *Network Theory*, in Bienzle H., Gelabert E., Jütte W., Kolyva K., Meyer N., Tilkin G., *The Art of Networking. European Networks in Education*, Unternehmensberatungsgesellschaf, Wien 2007, pp. 5-14.

[7] Castells M., *The Rise of the Network Society. The Information Age: Economy, Society and Culture*, vol. I, Blackwell, Cambridge (Ma) 1996.

[8] Schenk M., *Soziale Netzwerke und Massenmedien. Untersuchungen zum Einfluß der persönlichen Kommunikation*, Mohr Siebeck, Tübingen 1995.

possibility to access the network concerned and with the role the person manages to take on within it.

The features of a network depend on the way in which they came to be built regarding the two elements highlighted. In particular, as regards the quality of relationships, the relevant features are constituted by describers such as: the reciprocity, homogeneity, heterogeneity, strong and weak, latent or clear commitment, intensity (frequency of contact) and duration (stability).

As for the functional features of networks, this means considering the content of the relationships: values, exchange of resources, communication, learning and the nature of the support.

Relationships existing in networks give members various types of combined learning resources (*multiplexity* of relationships) such as: exchange of information, acquisition of material and non-material resources, political mobilisation, power sharing, solidarity (educational and non-), benchmarking and mutual support in critical situations[9].

The strength of the relationships between the members of a network has a non univocal meaning, that is to say there are advantages which can arise even from membership in networks of weak links[10]. In the case of strong links, the time commitment, emotional intensity, intimacy, permanence and reciprocity multiply.

4. *A Model of a Strong Network: the* Triple Helix

Innovation, as an instrument, requires the putting into effect of a system for spreading knowledge. Studies on regional policies show the tendency towards better performance by industries belonging to clusters[11]. As for innovation, it is not sufficient to concentrate only on proximity in geographical terms; functional bonds can constitute a type of virtual cluster based on shared skills or their participation in a correlated chain of production[12].

The aim of state and private policies is therefore the promotion

[9] Jütte W., *op. cit.*

[10] Granovetter M.S., *Economic Action and Social Structure: The Problem of Embeddedness*, in «American Journal of Sociology», 3, 1985, pp. 481-510.

[11] Erhvervs og Boligstyrelse, *Kortlægning af danske kompetenceklynger*, Copenhagen 2003.

[12] For a general introduction to examples of 'clusters' based not only on geographical proximity refer to Erhvervs og Boligstyrelsen, *Kortlægning af danske kompetenceklynger*, Copenhagen 2003. Dealing with clusters based on skills and products.

of relationships between the various players in the processes of innovation.

The *triple helix model*[13] is the representation of the type of strong link network necessary for the promotion of innovation in production (Fig. 1).

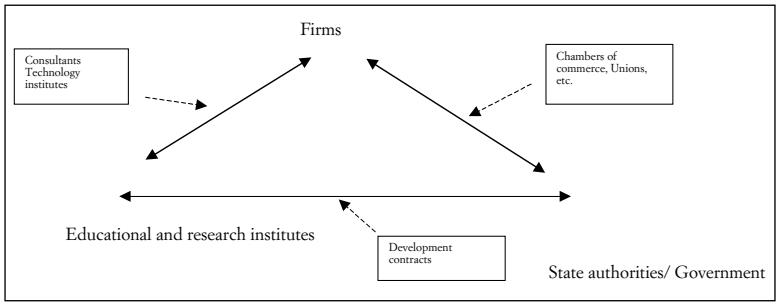

Fig. 1. The Network for Innovation in the *triple helix model.*

The *triple helix* model attributes a function of intermediary for the system of consultancy firms, as "mediators" between the companies and the knowledge sector. A similar role is attributed to chambers of commerce and trade associations, where the business community is concerned. The role of national, regional and local state authorities, besides encouraging innovation by means of policies for the economy and the development of social capital in a given area, is to ensure that the various players cooperate and develop partnerships. Furthermore, universities and centres of research are considered to be within the third pole of the *triple helix*.

The significant bonds in the innovation process are not necessarily spatial or concentrated at a geographical level. Therefore, a policy for enterprise development oriented towards the cluster must have a wider purpose. In particular, the agencies for services to business or mediators of innovation must have the function of local anchor of knowledge, that is to say, aim at transmitting new technology and procedures to the local enterprise community.

[13] Etzkowitz H., Leydesdorff L., *The Dynamics of Innovation: from National Systems and "Mode 2" to a Triple Helix of University-Industry-Government Relations*, in «Research Policy 29», Elsevier, The Netherlands 2000, pp. 109-123.

5. *The Study Circle as a weak network*

The processes of innovation are also fed by less strong and structured relationships which often precede the creation of stable networks and which, for certain functions, are more suitable for the purpose.

In the case of networks featuring weak links, relationships are found to be less intense and of a lower degree of reciprocity. It is, however, thanks to the existence of networks with weak links that certain members of different networks (see Fig. 2) and parts of groups begin to communicate and are transformed into vehicles for sharing new and heterogeneous information: «Through the low selective spread of information, they are obviously quite capable of promoting innovation»[14].

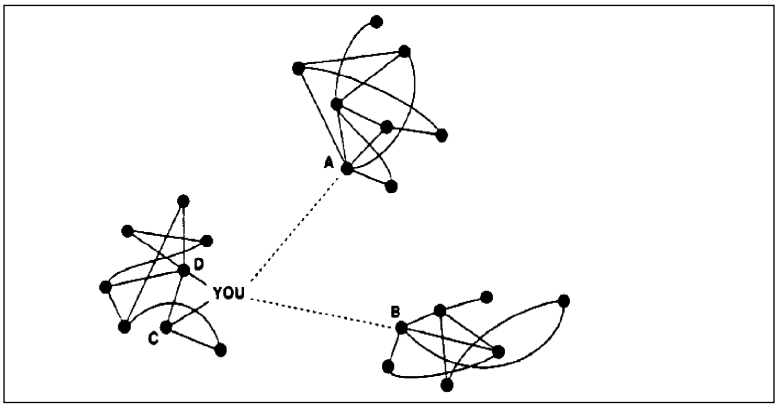

Fig. 2. Representation of the activation of weak links between strong bond networks[15].

The process of network building, especially weak link networks, constitutes a task for educational action. In addition to access to strong link networks, the promotion of weak link networks, to whom training duties should be given as a matter of priority, constitutes a concrete terrain for intervention in favour of innovation.

Study Circles for innovation stand out because of their ability to put people with relevant knowledge and who belong to various

[14] Jütte W., *op. cit.*

[15] Figure 2 is taken from: Burt R.S., *Structural Holes. The Social Structure of Competition*, Harvard University Press, Cambridge 1992.

strong link networks, in contact with the people who are not included but who show interest in the exchange of learning.

6. *Results and Content of a Study Circle for Innovation*

Dynamic learning networks for innovation have the inalienable feature of being action-oriented. These networks are where there is «a process of social learning»[16]. For this reason, dynamic learning networks have, in their construction or in their transfer of innovation, the main indicator of success, an element which distinguishes them from other types of network (aimed at research or at personnel training).

The expected results of a Study Circle for innovation can concern the innovation of products, processes, organisation and marketing.

The distinction between a product and the process for its innovation has often been considered as the starting point when talking about the search for new application models for firms[17]. *Product innovation* can be defined as the process of launching a new product, both in technical and in marketing terms. *Product innovation* concerns as much the production process as the means by which the product reaches the market. The fundamental relationship between these two dimensions is summarised in Fig. 3.

	Old product	*New product*
Old process	Zero innovation	Innovation of the product
New process	Innovation of the process	Innovation of the product and the process

Fig. 3. Aspects of the Concept of Innovation[18].

Note: For the purposes of analysis, it is possible to divide the process into the various stages of development, production and marketing

A firm's innovative behaviour can be connected to the technological process and be translated into better marketing performance. Therefore, the attitude towards innovation is of crucial importance. It

[16] Heclo H., *Modern Social Policies in Britain and Sweden: From Relief to Income Maintenance*, Yale University Press, New Haven-London 1974, pp. 305-306.

[17] Christensen C.M., *The Innovator's Dilemma*, Harvard Business School Press, Cambridge 1997.

[18] Fig. 3 is taken from: Cornett A.P., Freytag P.V., *Innovative Relations: a Business to Business and a Business to Public Policy Perspective*, in Knudsen T., Askegaard S., Jørgensen N., *Relations of Marketing*, Thompson, Copenhagen 2002, p. 205.

is not only a question of creating new ideas for new products and processes; it is also necessary to have both the ability and the will to transform innovation into products/services requested by the market. These factors add another dimension to the concept of innovation in the sense of *market and sales driven innovation*. This type of innovation is often considered the most important and capable of producing economic growth in the long and medium term[19]. In a certain sense, this means that the emergence of innovations within each must be explained and considered as an effect of the market and of the opportunities continually created therein[20].

The last result possible refers to *organisational innovation* and to the contribution that Study Circles can additionally bring to the existing knowledge system (science parks or new ways of spreading the results of research), to the system of knowledge and support (business incubators, centres for technology transfer) or to the same enterprise sector (creation of R&D departments, cooperative networks between firms).

As regards the various strategies for transfer, the models correspond, at least in part, to the types of policy learning models proposed by Rose[21] and which are divided into five different possibilities:

- The direct or almost total copying of an idea or product, transferred without substantial adaptations from one context to another. This is not a widely used means of voluntary transfer for the reasons already stated.
- Inspiration by the ideas contained or to which the achieved results refer and the experiences carried out. This is, as already noted, one of the most widely used practices.
- The adaptation of ideas or products to the context in which they are to be used. This is a widely used practice where the conditions in terms of resources exist.
- Hybridisation achieved by the partial modification of ideas or products already in use in contexts affected by the process of transfer.

[19] For an alternative view, refer to Kaufmann A., Tödtling F., *Science-Industry Interaction in the Process of Innovation: The Importance of Boundary-Crossing between Systems*, Paper presented at the 40th Congress of the European Regional Science Association, Barcelona 2000. These underline the importance of cooperation between science and firms (p. 1): «results show that partners from the science sector are more important than clients of the firm in the introduction of new products to the market».

[20] For further details see Cornett A.P., Freytag P.V., *op. cit.*, pp. 204-208.

[21] Rose R., *Lesson Drawing in Public Policy*, Chatham House, Chatham (NJ) 1993, p. 30.

- Cooperative transfer, achieved by means of the common commitment of several people (*user-to-user*) in the process of conception, adaptation and finishing of an idea or product in one or more contexts.

The path by means of which the process of transfer is deployed cannot be simplified easily. It is a social and not an individual phenomenon. For this reason it is determined by many factors. Several authors write that the possibility of first conceiving and then introducing innovation depends on *knowledge ecology*, that is to say the role taken on by the group of institutions and organisations dedicated to the production of new knowledge: «knowledge ecology provides the basis that permits individual innovation systems to organise themselves or which stimulates them to be created by intervention policies»[22].

The crux of this matter is constituted by the membership of the people concerned in learning exchange networks, those which can more generally be considered as innovation support microsystems that are multiple as regards themes, aims, the relationship of trust between members, and the instruments of support available.

In our case, however, the process should be viewed from the point of view of the person who becomes the *lead user* of a potentially transferable result. It is in this perspective that we have adopted the reading of the process, divided into the following fundamental phases:

- Expression of the transfer demand, based on the possibility, necessity and will to innovate in production. This phase is influenced by factors which determine the predisposition of entrepreneurs and organisations to transfer innovation and which orientate their demand for ideas and products.
- Access to innovative knowledge, to dynamic learning networks and to one or more systems of innovation. This phase is characterised by the activation of opportunities that permit entrepreneurs and organisations to know about the existence of innovation and to obtain information regarding its potential.
- Management of cooperative learning relationships within the Study Circle. This phase is characterised by processes of results-sharing on the basis of membership of various kinds of network, which permit members to obtain the availability of ideas and products on the basis of various forms of exchange.
- Transferring and absorbing innovation by means of the application

[22] Foray D., *The Economics of Knowledge*, MIT Press, Cambridge (Ma) 2004.

of learning outcomes of change to/innovation of production. This phase is characterised by the activities of adaptation or adoption of the innovation within the contexts concerned.

7. *The Method*

The problem of the method of innovation transfer immediately defers us to a double need: in one sense, the need to adopt an open approach to the *quête* – rather than to research – and in the other, the necessity to guarantee a device that permits the communication, collection and organisation of the results needed for the action.

The first methodological orientation responds to the fact that study within the Study Circle for the transfer of innovation is strongly biased in favour of understanding how to better one's own *performance*. In these cases, what prevails is a type of «Methodological opportunism (which) selects constructional tests that fit specific analysis, and ignores the evidence that can be provided by using other criteria that do not match the expectations of the analyst»[23]. The players entering a network to understand which ideas and which solutions merit consideration do not worry about the formal coherence of their progress, nor can they be obliged to stick with a particular method, even if this is deemed the most appropriate for the subject matter.

The dilemma is similar to that faced by Solow in Stockholm in 1987 on the occasion of his *Lecture to the Memory of Alfred Nobel,* when, commenting on research into economics, he noted that historical series of data «do not provide a critical experiment. This is where a chemist would move into the laboratory, to design and conduct just such an experiment. That option is not available to economists. My tentative resolution of the dilemma is that we have no choice but to take seriously our own direct observations of the way economic institutions work. There will, of course, be arguments about the *modus operandi* of different institutions, but there is no reason why they should not be intelligible, orderly, fact-bound arguments. This sort of methodological opportunism can be uncomfortable and unsettling; but at least it should be able to protect us from foolishness»[24].

[23] Croft W., *Radical Construction Grammar: Syntactic Theory in Typological Perspective*, Oxford University Press, Oxford 2001, p. 45.

[24] Solow R.M., *Lecture to the Memory of Alfred Nobel*, in Mäler K.-M. (ed.), *Nobel Lectures, Economics 1981-1990*, World Scientific Publishing Company, Singapore 1992.

In our case, it is the nature of the transfer of innovation – autonomous and voluntary and deeply action-oriented – that shifts it inevitably into terrains of methodological opportunism where, for any given rule however "fundamental" or "necessary" to science it might be, there are always circumstances in which it is opportune not only to ignore the rule but to adopt the opposite. For example, there are circumstances in which it is advisable to introduce, formulate and defend *ad hoc* hypotheses or hypotheses which contradict well-established and universally accepted experimental results or hypotheses, the content of which is less than that of existing and empirically adequate alternative hypotheses, or even self-contradictory hypotheses[25].

8. *Innovation Players as Cooperative* Lead Users

By definition, Study Circles for innovation in small and medium sized firms are aimed at *lead users*, that is to say the players who, whenever possible, produce their own tools commencing with whatever is available to them.

Being *lead users*, we are not looking at people who search for standard products; on the contrary, these people tend to adapt existing results to their own needs and develop new solutions. These people are open to the processes of innovation and also tend to play an active role.

Users of products and services are generally speaking more capable of innovating autonomously. The processes of innovation which place the user in the centre offer greater advantages compared with systems of innovation development, which place the accent on the producer, that is to say those systems which, for centuries have been the foundation of commerce. Users who innovate can develop exactly what they want, rather than trusting that producers will take on the role of agents of the process of innovation: from the expression of demand to transfer and absorption. Furthermore, individual users and firms do not have to develop everything they need by themselves, they can benefit from innovations developed and freely shared by others[26].

[25] Feyerabend P.K., *Against Method. Outline of an Anarchistic Theory of Knowledge*, NLB and Humanities Press, London 1975.

[26] Hippel H. von, *Democratizing Innovation*, The MIT Press, Cambridge (Ma) 2005, p. 2.

«The needs of users regarding products are quite heterogeneous»[27]. This encourages the research for ever more *ad hoc* and less standardised solutions. We are facing demand which aims to obtain exactly what it needs – here and now – and not something that is nearly what it needs. Awareness of the problems generating the need for innovation and of the context where products are used is fundamental for the development of the product. A generic knowledge of the solutions (possessed by the original producers) does not guarantee an adequate response to such a necessity.

The conscious position of *lead users* open to innovation is accompanied by a tendency to share the results achieved and the innovation brought about. The level of results-sharing can vary according to whether the people work in state or private training systems (in the latter competition must be taken into consideration). However, the commitment to innovation is accompanied by the willingness to share results and by the search for mutual benefit and the strengthening of the individual's reputation within the learning exchange network to which he/she belongs.

This confirms what Hippe said about the importance of belonging to a Community for innovation: «Innovation by users tends to be widely distributed rather than concentrated between a few, very innovative users. Consequently, it is important for users-innovators to find the way to combine and strengthen their efforts. This is made possible by the adoption of various forms of cooperation: direct, informal from user to user (help others in the process of innovation, replying to questions, etc.)»[28]. Specifically, the Study Circle does not substitute the Community for innovation (professional, trade etc); it creates the conditions so that weak links between certain players and possible initiatives of common interest can be created.

9. *The Functions of Staff Supporting Communities of* Lead Users

If we can leave as unquestionable the hypothesis that the educational action model defined here by the expression "Study Circle" can support the processes of innovation in small and medium sized firms by virtue of its ability to reproduce the naturalness of the processes necessary for the purpose, what remains to be examined are

[27] Franke N., Reisinger H., *Remaining within Cluster Variance*, Business University, Vienna 2003, cited in Hippel H. von, *op. cit.*

[28] Hippel H. von, *op. cit.*, p. 11.

the functions to be ensured for carrying out this type of action.

In the previous pages we have described the process supported by the Study Circle by means of four main phases:

- Expression of the transfer demand based on the possibility, necessity and will to innovate organisational and training practices.
- Access to innovative knowledge, to dynamic learning networks and to one or more systems of innovation;
- Management of cooperative learning relationships within the Study Circle.
- Transfer and absorption of innovation.

We need to analyse the functions which will aid the execution of this process, leaving aside, for the time being, the figures to whom these functions could be attributed.

The essential functions that could be required in this process appear to be the following:

1. Specify the content and nature of the *demand for innovation* existing in the firm or organisation to which the *lead user* belongs.
2. In the case of the firm, this task requires a capacity for complex analysis regarding the identification of necessary, desirable and sustainable innovation. This all requires a well-founded vision of the short and medium term future of the firm. Such a vision is based on awareness not only of the firm, markets and technological innovation and its potential application but also on the capacity to foresee and prepare the organisation for the improvements to be introduced.
3. The task of this type of survey, affecting every entrepreneur, cannot be entirely assigned to the system of Study Circles. But their success depends on the existence around the firm of a system of support from the very networks to which the firm belongs, from state support services, from consultants and from research centres. Study Circles for innovation must be offered within this system.
4. Personnel in charge of the promotion of Study Circles must be aware of this situation and be able to create opportune connections. They must also be able to read the demand for innovation of each entrepreneur. This is perhaps the most complex aspect because it requires the exercise of specific technological knowledge regarding, for example, the materials and organisation of the supply chain etc. In this phase, the primary necessity is that of relating the function of methodological planning of the Study Circle and the definition of the survey aims.
5. Meeting other people with similar demands or responses and who

are interested in cooperating for the development of their *know-how* by means of new applications. This does not necessarily mean that the task is to identify other entrepreneurs who share the same problem. This is not about creating a homogenous group by type of demand. What is needed is to connect solution bearers because they have the know-how to encourage the search for new solutions: if the problem is the marketing of a product, it would be perhaps useful to create a relationship between the producer of the product and the manager of the sales network with an interest in that product.

6. Here, the basic function to be born by the promoter of the Study Circle is that of *brokering know-how and interests,* putting compatible people in touch with one another. Again, we are looking at a function that requires good knowledge of a number of industries and of the possibility and advantages of common actions and forms of cooperation. Given that a system of Study Circles is necessarily open to any type of demand coming from any sector, we need to envisage a brokering function capable of connecting multiple specialist brokers with knowledge and connections and who *know things* and *people who might be interested in collaborating with other people*.
7. Creating *partnerships* between various players concerned. The task is to define the type of partnership that might be created between potential participants. Study Circles for innovation imply a form of cooperative learning where participants build a route to new learning of various kinds together. Study Circles for innovation are also aimed at opening the way for the transfer of innovation. This could lead to the creation of the basis for future common business projects.
8. Participation in a Study Circle for innovation means establishing partnerships for sharing problems and searching for solutions by means of external skills, or the sharing of know-how from which solutions and new business ideas can originate.
9. The function to be guaranteed is that of supporting the creation of different forms of partnership.
10. *Planning and managing the processes of cooperative transfer and learning* within the Study Circle. According to a classification of the types of Study Circle, the circle for innovation falls into the category of those whose *approach centres on the solution of a problem*, as seen in Study Circles formed by a group of people whose common interest is to tackle and resolve a problem they all share. Some authors make reference to an approach based on the method

of participated research. Even when not participated research, this approach is based on the adoption of a basically scientific method which passes though the normal stages of observation, hypothesis, check, definition and, if possible, preparation of action for the solution of the problem. What distinguishes this approach in a more scientific way is the fact that the phases of the work pass along a route from the specification of the problem to the formulation of action aimed at its solution.

11. For the purposes of planning and managing the Study Circle, the most important phases can be identified as the following:
    4.1. *Expression of the demand for participation* aimed at aiding potential participants to recognise each other as partners. The actions connected with this phase concern the determination and preparation of the methods and instruments to be used for informing, orienting and involving network leaders (administrators of state and private services, leaders of social networks, etc.) and the approximate identification of a field of study, to be discussed and defined in detail by future participants.
    4.2. *The launch of activities*
    The launch of the activities of a Study Circle requires the promoters to carry out a number of functions: the preparation of the meeting, the introduction, strengthening the network of relationships between the participants and the adoption of the decisions regarding the future of the circle. Strengthening communication between participants is the task of the tutor, especially at the start up.
    4.3. *Formulation of the feasible project*
    The formulation of a feasible project calls for the generation of new ideas and their translation into a programme of work to be shared by the group. Generating new ideas is a duty the tutor undertakes for the purpose of encouraging the same behaviour in the group. Generating new ideas is a result that can be encouraged by the adoption of appropriate techniques and processes of preparation.
    4.4. *Progress and use of resources, monitoring and assessment of the process*
    The basic educational resources available to a Study Circle comprise the possibility to make use of one or more experts and study materials. The use an expert usually occurs after participants have detected a need and specified the type of contribution they expect from this person. The choice of the expert can be indicated by the participants themselves or by the tutor or the organisation to which the tutor belongs. This choice is, however, based on the

characteristics defined by the group. In the Study Circle, the expert uses the methods and rules for relating, discussing and communicating defined by the group itself. If the expert is not familiar with group work methods, it is opportune for the leading of meetings with the expert to be entrusted to the tutor.

Assessment, the duty of the group, must be carried out at the end of each meeting, using methods of varying degrees of formality. The overall assessment regards the entire progress of the circle and takes into account the course completed and the results achieved. For this reason, elements of assessment must be prepared and made available by the tutor.

12. Managing the *route to the transfer of innovation*. Whilst this duty is undertaken after the conclusion of the Circle, it must be prepared for prior to the end. This can take place regarding both the expectations of each participant (impact of the experience on curriculum vitae, extension of network relationships) or the community (birth of new networks, formulation of proposals for innovation or action on members' networks, etc.).
13. The route to the effective deployment of innovation proposed in the circle is part of the life of the firm and any partners. Facing new challenges begins with the capacity for the firm and the entrepreneur to introduce necessary, desirable and sustainable innovations to products, processes, organisation and marketing.

10. *Conclusion*

In works on Study Circles, reference is usually made to two figures: the *tutor* and the expert. Study Circles on the transfer of innovation certainly confirm the need for this type of role. Certain aspects, however, require specification.

The attention to the problem to be resolved calls for a level of technical know-how both on the part of the expert, of course, and of the *tutor.* At the same time, both have methodological duties linked to the organisation and management of the educational action, of the Study Circle. And this has consequences, especially for the role of the expert.

Given that it is difficult to imagine that there are many people with the methodological know-how to manage a Study Circle and who also possess a high level of technical know-how, a solution might be found in the future in the creation of figures within the firm who are capa-

ble of managing this type of training opportunity. This means figures who, with the support of *brokering* services, would be able to manage partnership relationships and the use of experts in the framework of the educational processes which characterise Study Circles.

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CHAPTER III
THE CIRCLES FOR THE TOURISM, MECHANICAL AND NAUTICAL INDUSTRIES

Gabriella Campanile

1. *The Training of Circle Personnel*

1.1. *"Attended" Training*

The aim of the attended training was to transfer know-how regarding the training methodology of the Study Circle to *tutors* and experts from three sectors of the economy, the tourism, mechanical and nautical industries. The highly innovative nature of the use of Study Circles for the transfer of innovation between SMEs required special attention to the definition of the aims to be pursued in the training of the personnel involved in the execution of the circles. The conception of a course, whose aim was the development of the capability to transform the know-how regarding their function and role into action and appropriate behaviour, not only where the specific methodology was concerned but also to the "context of the firm", became necessary right from the planning phase of the training actions. This enabled the provision of training actions oriented towards the transfer of good practices in the management of the Study Circles.

In greater detail, within the activity, an initial analysis was made of the work experience carried out from one side in the context of the firm, and, from the other, from highlighting the *critical elements of success* of the first experiences undertaken in Tuscany on the use of the Study Circle in the world of work and in firms. By means of the use of participatory methodologies and the use of practical exercises, the possible grounds and consequential types of Study Circle to be deployed *in* and *for* firms were analysed and clarified. This enabled the start of new analysis, within the group being formed, on the future role of the *tutor* and the expert in the creation of the circles. As a result of the training, possible solutions and opportunities were identified for use in the various phases of the Study Circle from the phase of *induction* and *expression* of demand to the phase of *start up* and *execution* for firms in the tourism, mechanical and nautical industries, highlighting the common and distinguishing elements specific to each.

Attended and *on line* training were preparatory to the activity of managing the Study Circles and to the later *flanked* training activity of a course of *coaching.*

1.2. Coaching*, the Model Adopted*

The *coaching* carried out within each Study Circle was conceived as a process of consultation aimed at each of the people being trained, *tutors* and experts, and at developing the specific skills and abilities required by their role in the management of the Study Circle.

After the attended and *on line* training, carried out before the start of *coaching*, the trainees, already with knowledge of the methodology of the Study Circle, were able to develop their *savoir faire* and *savoir être* for the management of their specific role as part of their training. The aim of the coaching was to produce positive results, made possible by focusing on the end result, that is to say the improvement in performance in the management of the role played within the specific context.

The interaction between the *coach* and the trainees was based on the following phases:

1. Sharing of performance targets and the expectations for their role within the training context of the Study Circle.
2. Acquisition of a greater awareness of the skills they brought to the management of the role.
3. Acquisition of the resources for developing their own know-how in order to achieve their goals.
4. Sharing of support instruments for the management of the circle
5. Monitoring of performance.

The model of *coaching* used was based on the following elements:

1. Interaction between the coach and the trainee.
2. Transfer of the role skills by means of the request to observe the performance of the coach in the specific roles (1st and 2nd meeting of the Study Circle).
3. Flanking of *tutor/s* in the management of the role.
4. Flanking of the expert/s in the management of performance within the circle.
5. Transfer of working instruments supported by indications as to what should be done and what shouldn't have been done.
6. Monitoring of performance by means of observation and checking of the compilation of work instruments.

The logic followed by the model was the following. The *coach* in-

teracted with the *tutors* and the experts in a continuing manner by means of:

1. The sharing of specific training goals for each role and for each trainee (*tutors* and experts).
2. The on-going reading and monitoring of the training needs of the *tutors* and experts.
3. The sharing of the rules for the management of the Study Circles both for the *tutor* and for the expert.
4. The passing of the work agenda (to *tutors*) specific to each meeting.

The activity of *coaching* provided for each *tutor* and expert within each Study Circle was of 22 hours, that is to say for the entire duration of the Study Circle.

1.3. *The Training Process of* Coaching

The training activity of *flanking* was carried out, during the start up phase and during execution, within each Study Circle. The activity of *coaching* saw the development of two courses, one for the figure of the *tutor* and the other for the expert, courses which found points of connection in the phases of execution. With the figure of the *tutor*, by virtue of the determining importance played within the Study Circle, the central action was to redefine the role and function required within this specific training context. The use of log books, specifically designed for each meeting, permitted, on the one side, the supply of a useful, if not essential, work tool necessary for the good management of meetings, and from the other a training support tool. Each log book required the recording of the goals of the *tutor* and/or the group, the procedures applied, the specific output for each action operated by the *tutor* or the group, the times and lastly the recording, for each phase of the activity, of the dynamics of the group.

The course of coaching was conceived and calibrated to the individual training needs of the *tutors*. Having assessed and shared the know-how and the skills declared by everyone on entering the course, a flanking process was structured for each person. The first start up meeting for the Study Circles was managed by the *coach* with the aim of transferring procedures for leading meetings and managing group dynamics. In the meetings that followed, having assessed the training needs of each person, the flanking was modulated and calibrated to provide for each problem area.

The aim of the *flanking* carried out with the experts was to transfer

skills of a methodological nature for the training context within which the experts were to manage their contribution. The experts were called upon to support the *tutors* and the group in the analysis and identification of the needs expressed by the participants regarding the possible discovery of innovation and the definition of their demand for training, combining technical skills of their trade with the specific educational practices of the Study Circle.

2. *The Study Circles*

The key elements of the experience of the Regions of Tuscany and Marche are reported below and contain the analysis of procedures and results achieved in the tourism, mechanical and nautical Study Circles.

2.1. *The Tourism Study Circle*

a. *Start up of the Study Circle*

The start up of the Study Circle saw the participants getting to know each other and the creation of the group. The *tutor*, supported by the coach, accompanied the group in the construction of their network of relationships and helped them make decisions regarding the course to be followed.

The benchmarking activity, from the start up meeting, enabled the problems encountered in the management, but especially the development, of the participants' firms to emerge. Attention was immediately focused on the necessity to seek elements of innovation in marketing, by means of the identification of new elements in the procedures and the product to be introduced in the management and acquisition of the client. The demand for innovation, already defined prior to the trip to Sweden, was the research factor and key element to the course built by the participants of the Study Circle as a result of the meeting with Swedish tourism firms.

b. *The Feasible Plan*

The analysis of the research carried out during benchmarking with owners of Swedish *in-coming* tourism firms confirmed the necessity to further identify and define the needs of the group. The feasible plan for the Study Circle was thus defined.

The area for further investigation, deemed necessary for the

achievement of the goal, was identified as the underlining of the importance of research into possible new channels and marketing tools for *in-coming* tourism firms, from blogs to portals and company websites, in terms of choices and possible functions.

The procedure the participants used in their decision for developing their training was expressed with the help of the expert, who, proposing practical exercises using IT materials and the internet, was able to give explanations of the use of these tools and answer individual questions from participants.

The support instrument used by the *tutor* was the *Circle Log Book,* where the aims and procedures of each meeting were recorded. Monitoring during the various phases of the completion of the project was designed to be a sequence of actions accompanying every activity of the training by means of the practical acquisition of elements for the resolution of problems.

c. *Assessment*

The assessment within the Study Circle was made by means of participated and self assessment in order to check the compounding of the results and the satisfaction of the experience shared within the group. An interview was carried out with each participant of the Study Circle.

Fig. 1. Assessment of The Tourism Industry Study Circle.

The goals for self development were achieved, especially the development of knowledge of about hospitality structures in Tuscany.
The contribution of the expert and the *tutor*, with specific know-how of the industry, helped make the training effective.
The Study Circle experience formed a starting point in the development of knowledge of the matters identified and tackled
The learning network succeeded in identifying the elements of innovation to be introduced to the firm's marketing.
The exchange of knowledge between participants was successful The learning network activated was integrated in a coherent and complimentary manner with the knowledge transmitted by the expert.
The innovation identified concerned the marketing of the firm.
The Study Circle investigated the potential of the following innovation:

- new promotional channels, portals, Blogs,
- how to make promotional communication on the firm's web site effective for the conquest of new markets,
- new awareness of the variety of hospitality facilities in Tuscany.

Many participants are already assessing the tools and procedures they need to deploy in their firm's marketing

Around 40% of the participants declared that they would be introducing elements of technological innovation to their firm's marketing plan.

60% declared that the knowledge they had gained of facilities in Tuscany will allow them to introduce elements of innovation in the promotion and management of their supply of services to their clients.

The new European Consortium could have the function of rendering the learning network established in this experience a permanent reality.

Interest in the development of specialised industrial sector consultancy services for SMEs as part of the EDA EDU portal was expressed.

Assessment was made of the opportunity to create a business network
New Tourism Study Circles were requested. Future Study Circles should give greater emphasis to the matters handled in this experiment such as:

- on-line promotion of tourism,
- updating of promotional channels.

The Strengths of the experiment:

- trans-nationality,
- active benchmarking between participants,
- willingness to involve other firms in the tourism sector in future Study Circles.

Matters for improvement

- time management
- the creation of links between Study Circles within the project.

2.2. *Mechanical Industry Study Circle*

a. *Start up of the Study Circle*

The *benchmarking* conducted during the start up meeting helped participants make each other's acquaintance and learn about the firms for which each was a spokesperson on this occasion. Once the group had been formed, members exchanged experience and the issues immediately emerging concerned the management of their assistance service and the efficacy/efficiency of their services oriented to building customer loyalty. This was the starting point of their training course and research, which saw, as their work continued, the re-defi-

nition of their goals. The highly participated nature of the group from the start up phase determined the activities for the rest of the course. After benchmarking their experience and concerns, the participants were able to focus their attention on the possible innovation they could introduce to their firms and which could be sought during a study visit to mechanical firms in Sweden. The result of benchmarking and research centred mainly on the demand for innovation and the analysis of the potential for transferring flexible organisational models observed in Swedish SMEs.

The feasible plan was postponed until the return of the participants from their study trip.

b. *The Feasible Plan*

On returning from the tour, the group began analysing their experience of the Swedish firms. The participants were able to identify many stimuli from observation of *flat* organisation, that is to say one which works effectively but, above all, which aims at developing human resources. After active and participated benchmarking, the group reached the conclusion that innovation within an organisation comes from the integration and inter-dependency of its various systems and that human resources are the common bond and interface between systems. The analysis lead participants to *re-assess* their need for innovation and their capacity to transfer and deploy new organisation models in their firms. Whilst there was certainly no lack of elements of stimulus or thought, there was awareness that any plan to transfer an organisation model would be a long-term and very ambitious target. The group therefore decided to focus on one aspect of the *flat* organisation; the management and development of human resources in small firms. Attention therefore centred on one, even more specific aspect, that is to say the effective management of work meetings, beginning with the awareness of management levers for human resources in firms. Once the aims of the Study Circle had been defined, the group decided, with the support of the *tutor*, to continue the course by pursuing three activities to be completed by means of the use of three specific methods:

1st activity: *watching a film* of the presentation by a member of the teaching staff of the Organisation and Staff Department of the Bocconi Business School in Milan on human resources management levers in firms;

2nd activity: *case study* – of a meeting which took place in the firm of one of the participants; the management method applied to the case study was supplied by the *tutor* and the coach;

3rd activity: *role-play* – a company *information meeting,* prepared by one of the participants, which was also filmed; the activity was lead using the method support of the *tutor* and the coach;

Monitoring during the various phases of the completion of the project was designed to be a sequence of actions accompanying every activity of the training by means of the practical acquisition of elements for the resolution of problems.

The *Circle Log Book* was the support instrument used by the *tutor* and was where the aims and procedures of each meeting were recorded.

c. *Assessment*

The assessment within the Study Circle was made by means of participated and self assessment in order to check the compounding of the results and the satisfaction of the experience shared within the group. An interview was carried out with each participant of the Study Circle.

Fig. 2. Assessment of the Mechanical Industry Study Circle.

The training model adopted was effective because it was not top-down. It was seen to be a very dynamic and flexible instrument
It is a very important training instrument requiring great skill on the part of the *tutor* in guiding the group. It would be better to define a macro-subject before involving firms and then solicit their actual needs regarding this area during the induction and expression phase.
Whilst the experience was positive on the whole, the differences in the roles and skills of the participants did not permit full investigation of the study area.
The learning network succeeded in identifying the elements of innovation in the management of service and the selection of suppliers – organisation area
The network enabled the identification of innovation that could be introduced in the management of in-house meetings and offered points for reflection on the study of inter-personal dynamics – management and development area r.u.
The learning network set up within the course with Swedish firms enabled the identification of elements of innovation to be brought to the production line of participants' firms – production area
The network was an opportunity for personal development

The Study Case was positively assessed as a support method for the Study Circle.

The new European Consortium could be an observatory for the new needs of firms and, at the same time, offer responses by organising new Study Circles between firms from the same sector.

The new demand for training arising is specific and regards the role played by each person within their firm.

Study Circles on safety in the workplace, especially for welders, were proposed.

The Strengths of the experiment:

- trans-nationality,
- active benchmarking between participants,
- flexibility,
- the network,
- the results achieved,
- the Study Circle.

Matters for improvement arising from the experience

- Involve the firms' trade associations,
- Involve more firms,
- Involve firms on the basis of a macro-theme identified in advance.

2.3. *The Nautical Industry Study Circle*

a. *Start up of the Study Circle*

The nautical industry circle commenced during the study trip to Sweden The participants of the initiative were immediately able to make comparisons with the situation in Swedish nautical firms. Once the group had been formed, during the first session of the circle the participants first exchanged views on their experience in Sweden and later concentrated on the strengths and weaknesses of the SWOT analysis they carried out during the trip The difference in size and products of the nautical firms visited in Sweden prevented participants from firms in the Marche from identifying possible elements for innovation transfer. But the general observation of the group, emerging from the very first meeting, was that Study Circle as a training model was an innovative training instrument for use in human resources development in their own firms. The activation and stimulation of benchmarking brought out potential elements of innovation for further study as part of the training, such as:

1. The identification of new organisational development models, based on other economic sectors such as the car industry, to be deployed in participants' firms.
2. The identification of new models for developing and certifying human resources skills.
3. *Supply chain management* in the Nautical industry.
4. Models of *company re-organisation.*
5. Composite materials.
6. Development of policies for safety in the workplace.

These are some of the concerns emerging from the benchmarking between participants on possible innovation to be implemented. Once the decision as to the main subject to be studied as part of the Study Circle had been made, the feasible plan for the project could be put together.

b. *The Feasible Plan*

The personal and professional concerns shared by participants of the network, as well as the means by which each person was able to express them, were a measure of the keenness to participate in this training experience.

The areas of concern which the group wished to tackle within the circle required more time than was available for the project. Therefore, with the support of the *tutor* and coach, the participants managed to trace out a sustainable course capable of satisfying their needs. From the results of analysis and mediation, the knowledge needs of the group on which the aim of the Study Circle should converge became clear. The theme selected for the project concerned the techniques, analysis and characterisation of composite materials, especially:

- resins, styrenes and emissions;
- the structure of resins, the containment of emissions and foams;
- investigation into alternative technologies, Resin Transfer Moulding and Reaction Injection Moulding;
- adhesives, products, use, design and preparation of moulds.

The group decided to make use of the help of the expert, who handled each subject on the basis of the requests of the group, establishing the topic for the following session after each meeting.

Monitoring during the various phases of the completion of the project was designed to be a sequence of actions accompanying every activity of the training by means of the practical acquisition of elements for the resolution of problems.

c. *Assessment*

The assessment within the Study Circle was made by means of participated and self assessment in order to check the compounding of the results and the satisfaction of the experience shared within the group. An interview was carried out with each participant of the Study Circle.

Fig. 3. Assessment of the Nautical Industry Study Circle.

The circle was useful because it enabled further acquisition of vital know-how: composite materials.
New demands and needs emerged from the course.
The exchange of experience and knowledge within the network was very positive.
The learning network stimulated several potential elements of innovation for introduction to the firms; moulding techniques – production area.
The activity of the circle developed know-how and encouraged reflection on potential elements of innovation for production with impact on the marketing area.
The trip to the Swedish firms demonstrated the potential for a product (applicator machinery).
The network enabled the identification of elements of innovation in adhesives, to be introduced into production The Study Circle investigated the potential of the following innovation: • adhesives and foams, • moulding techniques, • product – applicator.
Applying innovation to production processes takes time and a new business model, in which the production process can be re-conceived, is needed.
Participants expressed the intention to deploy the innovation identified as part of this Study Circle; foams and adhesives.
The methodologies used were appropriate to the aims, the benchmarking process and the contribution of the expert were positively assessed.
Participants want to complete a system of networking between firms.
Greater participation by firms in a future European Consortium is to be hoped for.

The European Consortium could have the function of promoting projects of common interest with practical and immediate impact.

In the future the EDA EDU platform could have the function of supplying expert on-line advice in response to firms.

The consortium could have the function, by means of successful planning, of developing research and the growth of firms in the nautical industry.

The Study Circle was seen as a potential training instrument for deployment within participants' firms.

Inter-company Study Circles could concern transversal areas of interest, such as safety in the workplace, environment etc.

The new demand for training arising is oriented towards:
- further learning about products and materials used in production processes,
- new organisation models,
- re-interpretation of production models.

The Strengths of the experiment:
- the Study Circle as a training model,
- active benchmarking between participants,
- the opportunity for participants to play an active role in deciding the content of the course.

Matters for improvement:
- involve the districts of the territory,
- involve the firms' trade associations,
- spread the initiative and involve greater numbers of firms.

CHAPTER IV
THE ROLE OF EXPERTS AND *TUTORS*

Ekkehard Nuissl von Rein

1. *Principles*

Study Circles are mainly social groups characterised by the fact that all participants have the same role. The democratic structure of Study Circles is based more on dialogue and freedom of communication between the participants and less on the contribution of public official speeches, external experts or formal presentations. The Study Circles content is based on sharing the differences between experiences, knowledge, interests of all the group participants, who are free to decide on which aspect they want to concentrate on and in which direction they want to lead the discussion to[1].

These inspiring principles of Study Circles have an impact on the participants' roles definition and interaction. By defining their roles the participants of a group take over more and more special tasks (like systematically collecting information or monitoring the preparing of the next meeting). By spontaneously taking over such tasks the participants embody fixed-term roles that they play with the support of the rest of the group. The experience or the tasks are then rooted in the Study Circle process. Interaction follows the same philosophy: interaction is here mainly related to the principle of "being equal in a circle of equals", i.e. a non hierarchical interaction. Indeed in some single cases the accepted partition of tasks inside a group can possibly cause a participant to be too overloaded with interaction – like in holding a speech or in organising and implementing (facilitating) a meeting.

In principle the change of roles and tasks according to interaction is structurally prearranged, for this reason single roles are always fixed-termed. Indeed in some particular Study Circle variants the roles are separately defined, as the one of the "primus inter pares", of *tutors* or of external experts as in the case of the Study Circle of the EDA EDU project.

[1] See Bjerkaker S., Summers J., *Learning Democratically. Using Study Circles*, NIACE, Leicester 2006.

2. *Special Roles*

In the EDA EDU project there were mainly two special roles which developed inside the Study Circle: the one of the "*Tutor*" and the one of the "Expert".

According to this model the *tutor* has fundamentally the tasks that in other Study Circles is provided to the "primus inter pares". The *tutor* must start the discussion and where necessary, moderate it. He must support the participants' learning process and motivate them to take active part to the Study Circle and to work independently outside its framework. During his job inside the Study Circle the *tutor* must recognise the participants' needs and provide support to other experts for setting up an helping method when required by the participants' interaction. In the special case of the EDA EDU project the *tutors* were the ones who had to stimulate and manage a virtual Study Circle and that provided special help by looking for the needed technical support to set up videoconferences etc. and that had naturally – since the cooperation was between Italy and Sweden – to speak English.

Talking about the *tutors*' tasks they had to be logically able to show competences in the framework of social interaction with the participants, to be flexible and team oriented, to show ability in negotiation and in the networks and team-building processes, and finally to listen and take care of the participants' needs. *Tutors* had to be able to manage different methods of interaction, needs and feed-backs analysis, group dynamics and motivation and finally they had to be able to manage and create binding schedules. Also the management of aspects of problems evaluation and definition strategies is part of the *tutors*' list of competences.

During this project the *tutors* were trained according to their tasks and were also told how to take care of project specific responsibilities like workflow reporting and monitoring, which was part of the *tutors*' job inside EDA EDU.

The experts that were trained to cooperate in Study Circles had the task of presenting short learning sessions, to provide specific solutions for companies innovation needs and also to know about the status of discussions at European level. Indeed also the experts had to speak at least English (together with Italian) and to have a satisfactory ICT knowledge.

According to their commitment in the Study Circle the experts' competences were the same as the ones of the *tutors*: problems discovery and solving, self-evaluation, negotiation, social interaction and

also competences on the technical field of study matters, which was the project aim.

At the basis of the implementation of special roles as the ones of *tutors* and of the (external) experts in the Study Circle there is the acceptance of such special roles (not time-related and almost "conditioned") by the participants. Special roles must be presented already from the beginning and in key phases of the learning process and have to be explicitly accepted by all members. This process of acceptance took explicitly place in three Study Circles at the beginning and was implicitly accepted during the learning process. Language skills plaid also an important role for the study visits in Sweden. In this case the most important tasks of information orientation and exchange were part of the experts' and *tutors*' job.

3. *Reciprocal Expertise*

3.1. Tutors *vs. Participants*

From the process flow analysis point of view we can see the general tasks partition and assignment between *tutors* on one side and participants on the other side during the Study Circle meetings:

Tutors: *Tutors* are responsible for:

- moderating the general communication process during Study Circle meetings,
- suggesting and monitoring interaction rules,
- leading interaction through questions, summaries and stimulation,
- motivating participants in order to create an interactive dialogue,
- stimulating participants on the available subjects,
- binding single parts of the discussion to the rest of the programme,
- working on perspectives coming from the implementation and transfer of the learned knowledge.

Participants: During the meetings the participants are particularly responsible for

- interacting between each other on the Study Circle interests and aims,
- enhancing their personal and the other participants' learning process,
- self-evaluating their learning processes,
- asking questions and evaluating answers,

- providing for a concrete link of the learning matter to the own experience and work environment,
- building perspectives that result from the learning process in order to implement and transfer innovation.

This general partition of tasks in Study Circles between *tutors* and participants is always to be concretely identified in the meeting protocols. So more or less during the first meeting of the "Meccanica" learning circle, the *tutor* had to explain which were the interaction rules, he had to clarify questions and doubts, provide support for decision making processes and put order in the discussion aims. At the same time the participants had to explain their interest according to the learning process in the Study Circle and they had to elaborate concrete issues that they wanted to discuss according to their working environment and company life experiences. In this context they could also formulate their interest for their period of study in Sweden. In the case of the Study Circle "Tourismus" the *tutor* had the special role of formulating the core questions and providing a systematic structure to the tasks and results of the period of study in Sweden.

The *tutors* and the participants have the same responsibilities according to the perspectives related to the learning matter. In this case the relationships inside the Study Circle have a complementary value: the *tutors* and the participants formulate in the same way the wish of new tasks implementation in their companies, but they have different positions for the possible out-coming issues. In this case the participants are most of all the ones underlining the possible issues, the *tutors* instead are the ones that indicate a possible problem solving strategy and in this sense they take a part of the role that should be devoted to the experts.

3.2. *Experts vs. Participants*

From the protocols analysis and according to the different expertise or tasks partition we can outline the following differences between experts and participants:

Experts: The experts are mainly responsible for
- providing a deep and up-to-date knowledge of the study matter (ex. chemical processes etc.),
- embedding the study matter in a broader discussion framework (such as safety at work),

- embedding the study matter in the European and international context,
- evaluating the study matter relevance in the actual Study Circle learning process,
- evaluating and putting order in the participants' knowledge and interests,
- adapting the learning matter to the participants' situation and also
- providing the possibility and evaluating the hindrances of transferring the learned material.

Participants: Compared to the experts the participants are responsible for

- providing their knowledge about their working and company environment,
- providing their knowledge of the tasks and needs at a work place,
- formulating their questions and their interests according to the experts' knowledge,
- examining the experts' proposals and questions according to their personal working environment,
- examining the possibilities of transferring the learned expertise in their personal working environment.

In the learning process of Study Circles we can see this general partition of tasks according to the different importance of the tasks themselves. It was in any case vital that the experts were involved in the discussion at a point in which the Study Circle was already established from the social and the content point of view and when its core interests and learning matters had already been selected. According to this fact the possibilities of an active dialogue in the Study Circle between the participants and the experts about their knowledge improved. In this way the general partition of tasks could take place most of all also in the interactive phases between participants and experts. And also the questions of the participants and experts were always lead from their interest of analysing the concrete way to use the leaning matters (that were provided in small learning units) according to each personal situation. In any case experts could (because they had been previously trained to this role) provide information and answers together with the participants, on the issue of transferring general information into concrete life. The division between "theory" (experts) and "practice" (participants) that generally is part of the learning process in many ways was not to be seen in Study Circles.

This is valid also for the situation in which (and this is a new interesting fact) the experts were virtually linked to the Study Circle.

The general responsibility for the transfer of the learning matter in this situation was achieved in the same way as between *tutors* and participants: the participants explained their interest for a particular implementation process but also their concerns according to possible issues related to it, while experts gave their advice for a solution that came from other external contexts and that could be treated as experience.

4. *Best practices*

From the here available documentation the possibility to create complex best-practices models is not here to be stated, since there is too less material and the variations between single actions, objects, processes and relationships are not so systematically structured. Actually we are talking about Study Circles that were created on the basis of a well structured and prepared process, but that were more made to experiment first a particular field of study and then a model of study.

As best-practices we have here some single elements, that could be positively evaluated in the single Study Circles contexts. These elements according to *tutors* and experts are mainly the followings:

- The role of the *tutors* and experts during the study visits abroad was very important, since they did not only provide contacts and knowledge, but also the needed communication tools (language). Their employment in the Study Circles was then evaluated as positive, since the participants had to prepare these study visits with the *tutors* and experts according to the asked questions and related matters. And this was a encouraging experience. By preparing the study visits the different expertise of participants, *tutors* and experts were taken into account in the same way, and also the single interests and points of view could be linked together and correctly analysed.
- The training made by *tutors* and experts according to the activity specifications in the Study Circles was very useful most of all for the interaction and the participation of the members to discussions and decisions of the circle itself. The reciprocal respect, that is recognisable among the participants inside the Study Circle meetings, is based actually on the awareness and on the training of *tutors* and experts.

- The inputs of the *tutors* (ex. interaction rules) and experts (questions on materials) are actually effective and compliant, if they are concise, if they relate to the actual learning cycle process inside the Study Circle and if they relate to the participants' interests and try to respond to them providing a structural help. Most of all it is very positive, when short activities take place within the learning process.
- The commitment of external experts is mostly interesting to create a "lively information pool" in the Study Circle. In that way the expert can provide detailed information, when the participants ask precise questions demanding precise responses. The experts' activity is then particularly profitable, if their participation to the Study Circle is intensively and structurally prepared.
- The interaction phases between participants and experts are then particularly profitable if they are structured as a real exchange: not only the participants ask questions to the experts, but also experts ask questions to participants. The participants are provided with answers to their questions where the required information is given, but also through the experts' questioning the participants are provided with structural and orientation help and also some detail about situations that they were not really familiar with. Such an exchange between experts and participants can and must be accurately moderated by *tutors*.
- The study visits auditing – in the same way as their preparing – must involve participants, *tutors* and experts. In this sense the group evaluation and explanation of commonly created charts is important too. A too rapid passage from the study visits results evaluation to a problem solving strategy erases often the transfer related possibilities and issues that can be set out with an analysis.
- Talking about a democratic and participated Study Circle, the creation of roles like the ones of "*tutor*" and "expert" demands also prudence. Acceptance and auditing of acceptance during the Study Circle process are basic tasks that should be put into practice. Other two key factors are flexibility and readiness not only to enhance transparency in roles sharing, but also to implement change according to the Study Circle process.

5. *Experts in Study Circles*

"Experts" are skilled people specialised in the different fields

which the Study Circle deals with and which learning processes are based on. Experts are generally engineers, graduated in economics and commercial studies, technicians, marketing or computer specialists. The participation of experts in Study Circles provides many different interfaces that may create conflicts with the principles and goals of the Study Circle work. The interfaces are mainly:

5.1. *Theoretical knowledge*

Experts are defined as experts because of their expertise in a particular field. Indeed the identification of this expertise is in the theoretical knowledge of general rules, objects and processes related to the learning matter. In the Study Circle of a specific project the object was theoretical knowledge about "marine engineering" (shipbuilding!), mechanics and marketing. In the best cases the experts had learned this theoretical knowledge during their working life or according to their concrete experience. This depends indeed from the education background of each expert. Indeed in many cases (most of all according to academic expertise) general knowledge had been also learned in theory, in the best cases with the support of a traineeship.

This kind of expertise can affect the Study Circle with the following issues:

First of all people will ask themselves, if this theoretical knowledge really fits into reality. Most of all in the Study Circle "Nautica" (marine engineering) these structural problems of "fitting" were particularly critical.

Secondly theoretical knowledge is actually general and for this reason not automatically oriented to the concrete experience, problems and interests of the Study Circle participants. In some cases we had problems of mediation of these two plans of reality: a practical question cannot be sometimes answered by theoretical knowledge only.

The third issue is that theoretical knowledge sets on the object of discussion (ex. marketing) but not on the working context which this object is part of, in which responsibilities, procedures, employment, decision making processes and resources are involved in the same way. Without such an awareness of the context expertise cannot always provide an answer to reality.

5.2. *Knowledge transfer*

The knowledge of experts must be transferred in the Study Circle

framework: to its practical study aim and to the people involved in the discussion (the last one is part of the didactical process, see point 5.3). This knowledge transfer sets on structuring expertise and on focussing it on the Study Circle object. In this way expertise can be concretely part of this general knowledge framework on the one hand and on the other hand it can be concretely discussed in order to provide solutions to problems.

This knowledge transfer is an expert related matter and task. An expert must recognise the concrete situation of the objects of discussion in the Study Circle, understand them and then redirect his general knowledge structure according to them. In this sense the expert has to be analytical and competent in redirecting his thoughts according to the study matter. He must create this process of thoughts restructuring in such a transparent and easy way to make it profitable for the participants.

On the other hand also the Study Circle participants have the duty to be very precise in recalling circumstances so that the general knowledge of experts can better relate to them.

In this win-win process of knowledge transfer we need a Study Circle in which both sides (experts and participants) can regularly interact according to their personal expertise (the general one for the experts and the concrete one for the participants). Both sides must ask professionally precise and specific questions and listen carefully to answers in order to integrate them in their cultural background. For the Study Circle participants this win-win process of knowledge transfer is in a way easier: in fact they can be better judges of the practical applicability and proximity to reality of the discussion objects since their knowledge is more reality based and oriented. Actually the orientation, clarification and structural competence of experts are not always related to the concrete needs of working life. At the end experts are also the ones committed to provide a good transfer of knowledge by providing an object-structured transfer of information that must be profitable to both sides.

5.3. *Didactical Behaviour*

A great part of the experts' activities in the Study Circles are carried out to share a general, orientative and broader knowledge as much as actual knowledge. This process of cultural background sharing in a specific social context is a concrete didactical activity that has to follow precise rules. The most important rules are the ones con-

cerning the study matter shrinkage and reconstruction for pedagogical purposes according to the interaction process. This study matter shrinkage and reconstruction process is not actually related to the structure of the study matter itself, but to the Study Circle actual participants: to their interests, priorities, previous experiences and to their way of communicating. In Study Circles these assumptions play a crucial role: in fact participants are not only recipients of knowledge, but they are actively involved in communication and learning processes, according to the principle of equality. The prerequisite of the experts' knowledge sharing in Study Circles is for this reason related to the didactic rules awareness and practise.

5.4. *Social Behaviour*

Experts are "foreign bodies" most of all in Study Circles: they are brought into discussion at a particular stage of the debate, where they are invited and asked for their advice according to their skills. This is dangerous not only since it puts in place a hierarchical interaction (which is contrary to the Study Circle principle) but also since it can enhance an incorrect social behaviour in the group. This danger becomes greater, as far as the group dynamics of the Study Circle progress, i.e. if the expert is introduced in an advanced stage of discussion. Hierarchical communication and social strangeness are dynamical elements that can hinder the acceptance of experts and most of all the one of their knowledge in Study Circles. Experts must for this reason be trained on the correct social behaviour and thought patterns.

5.5. *Problems-solving strategies*

The here introduced four problematic interfaces that relate to the experts' employment in Study Circles have three possible solutions that were used also in the EDA EDU project in different extents:

- Experts that have to be employed in Study Circles should undergo special training, be provided with information and have also personal training sessions. The advantage of this solution is to prepare experts in a much focused way for participating to a very precise Study Circle and to a determined situation that they will need to face. The disadvantage is that in this case we risk spending a lot of time and resources and this is not generally feasible in autonomous Study Circles.

- The employment of experts in Study Circles should be complementary to the definition of other roles, as in the cooperation with *tutors* in the EDA EDU project. In this case *tutors* have to carry out all tasks with didactical, social and interactive aims, while experts can concentrate themselves on their specific roles of specialists. The advantage is that we don't spent too much time and resources for experts and their intervention can be well structured as well, but the disadvantage is that we have to spend more time and resources for extra *tutors* (that also have to be professional and competent) for the Study Circle.
- The third strategy for the experts' employment is to create the Study Circle directly in the working environment so that the experts can relate directly with the situations, procedures and issues of a working place reality. In these circumstances the Study Circle can take advantage of many interactive elements while working together. The advantage is a direct and less theoretical exchange of concrete vs. abstract knowledge, but the disadvantage is that the concrete side of problems could be predominant, furthermore job positions of Study Circle members are often different.

An additional possible solution for the employment of experts in interactive and communicative learning and teaching oriented processes could be to embed the here above underlined elements in their regular education and training method; or (on the other hand and very generally speaking) to develop possibilities of lifelong learning for experts. This could indeed put in place a consequent, most of all also regionally-driven general strategy about actors that in many cases have no prospects of further development.

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CHAPTER V
THE STUDY CIRCLE *TUTOR*: A TRAINING PROFESSIONAL

Vanna Boffo

1. *Study Circle and Training Process*

The training model of the Study Circle has as much the privilege of being relatively new to Italy as being extremely interesting and effective in producing results in the local situations of the regions where it has been supported and used, thanks also to the commitment of provincial and regional policies for education and training[1]. Much has been written about this innovative model of permanent education, an instrument for spreading knowledge and learning as well as being a vehicle for supporting and experimenting inter-personal relationships[2]. Since earliest records dating back to the beginning of the

[1] See www.ideeinrete.it the website showing the spread of Study Circles from 2000 in the Region of Tuscany; See www.circolidistudio.net is the Study Circles in Tuscany portal. Where there are links to other European and international portals explaining Study Circles. References dated 10/01/09. The Region of Tuscany is especially committed to the realisation, planning, spread and support of the strategic sector of adult education by means of the extension of the non-formal education model of the Study Circle. From 2 March 2000, the date of the Agreement between Government, Regions, Provinces, Municipalities and Mountain Communities for the re-organisation and development of the territorial system of adult education in Italy, the Study Circle model has been used increasingly by regions around Italy, who are committed to its use, investing in the spread of the circles at a micro territorial level. See http://www.istruzione.it/dg_postsecondaria/allegati/acc020300.pdf, references dated 10/01/09.

[2] For the italian publications See Federighi P., Campanile G., *Formazione alla sicurezza nei luoghi di lavoro e circoli di studio* (*Training in Workplace Safety and Study Circles*), Edizioni ETS, Pisa 2008; Guetta S., Del Gobbo G., *I saperi dei Circoli di studio* (*Learning in Study Circles*), Del Cerro, Tirrenia 2005; Irpet, *L'esperienza dei Circoli di studio in Toscana* (*The Experience of Study Circles in Tuscany*), Edizioni Plus, Pisa 2005; Mannucci M. (ed.), *Circoli di studio in Toscana* (*Study Circles in Tuscany*). *Quali esperienze, quali prospettive* (*Experience and Prospective*), Edizioni ETS, Pisa 2008; Marzio V., Tagliaferro F., *Idee in circolo* (*Ideas in Circles*), Del Cerro, Tirrenia 2004. For the international publications See Blid H., *Learning and act with Study Circles*, Nykopia Tryck, Stockholm 2000; Oliver L.P., *Study Circle: Coming Together for Personal Growth and Social Change*, Seven Locks Press, Bethesda 1987; Kindstrom C., *The Study Circle Method*, Studieförbundet Vuxenskolen, Stockolm 2002; Sarly R.M., *Dialogue Circle: a Guide for Facilitators*, General Assembly Office, Boston 1999.

20th century, with the first circle *certified* by Oscar Olsson, also known as the "father of the Study Circle", founded in 1902 by the Order of the Templars, this method of approach was proven as a means of distributing innovation and creativity in knowledge and relationships. The main rules, on which its success is based, were dictated at that time and during the 20th century the Study Circle spread throughout regions of Europe, mainly in Scandinavia.

The Study Circle offers a pedagogical model for learning; from one point of view, the growth in formal and informal knowledge and all the knowledge that an individual is capable of receiving over a lifetime, but from the other, the Study Circle represents a place of training par excellence, where training is inspired by the model of *Bildung*[3].

The training process, by which a human being continues to nurture himself and find renewed form, is built by means of the knowledge and learning acquired, but which is also re-elaborated and transformed, throughout life. Furthermore, every individual acquires knowledge and learning in institutional places and in this sense the school represents the first place of formal transmission. However, as an adult, training for day-to-day working life, given in the environment of the workplace and regardless of whether the job is mental, manual or bureaucratic, takes on special value. It is in the workplace that the human being is formed, trained by means of the learning of knowledge that is consolidated, initially from the cultural, community and social dimension and from the ever deeper understanding that the greater dimension of the self is capable of giving of itself for the purpose of exchange, dialogue and sharing.

As Paolo Federighi[4] points out, knowledge is produced, developed and translated into experience by means of networks of exchange of learning. Exchange networks are built with a high degree of traffic of resources, ideas and knowledge which permit the circulation of learning in a horizontal and relationship sense. The individual finds him/herself both at the centre and at the periphery of reticular connections that are sometimes weak and sometimes strong, depending

[3] See Cambi F., Toschi L., *La comunicazione formativa. Strutture, percorsi, frontiere* (*Training Communication. Structures, courses, frontiers*), Apogeo, Milano 2006; Cambi F., *Introduzione alla filosofia dell'educazione* (*Introduction to the Philosophy of Education*), Laterza, Roma-Bari 2008.

[4] Federighi P., *Requisii per l'efficacia della formazione alla sicurezza nei luoghi di lavoro* (*Requisites for Effective Training in Safety in the Workplace*), in Federighi P., Campanile G., *Formazione alla sicurezza nei luoghi di lavoro e circoli di studio* (*Training in Workplace Safety and Study Circles*), Edizioni ETS, Pisa 2008, pp. 13-36.

on the relationship context activated, but always circular and dialogical. By means of the reticular model[5], communication becomes a central element for the spreading of ideas and, at the same time, for the contemporaneous awakening of needs and motivation. The network, which can be digital, and therefore *on-line*, or real, and therefore face to face, itself evokes not only the possibility of learning contamination but also the communicative relationship nature at the foundation of the possibility to exchange knowledge, move new ideas, create innovation, exactly, by community contamination which occurs through links, either weak or strong, between minds, people, experiences and action. At the basis of the network concept, which Castells elected as the model of knowledge transmission in the digital age, there is training communication which begins to be developed by the sharing of grammar, or language, texts, or content, links, or relationships[6].

Learning networks are activated not only in formal situations, such as school institutions and in non-formal contexts, such as associations but also, and above all, in the informal situations of daily life. Also in the workplace which, in adult life, represents a substantial part of each individual's daily experience. In working situations, professional people reproduce their previously acquired knowledge, translating it into knowledge to be shared, transforming this learning into innovative know-how and allowing this innovation to consolidate for a dual purpose; mental and technical-practical.

Even in the workplace, knowledge and learning migrate from person to person by means of exchange networks which, in this case and due to lower emotional impact, are weaker compared to domestic or scholastic networks, despite a high degree of motivation. The network supports itself by means of exchange between the interior and the exterior, between authorities/firms and people, between external firms and communities of internal matters. The workplace becomes a centre of knowledge production which trains the individual in a progressive, circular, dialogic and communicative movement.

The network represents the loop of knowledge that, as Morin indicated, is created between society, the individual and culture[7].

[5] See Castells M., *The Rise of the Network Society. The Information Age: Economy, Society and Culture*, vol. I, Blackwell, Cambridge (Ma) 1996.

[6] Toschi L., *La comunicazione generativa* (*Procreative Communication*), in Cambi F., Toschi L., *op. cit.*, pp. 5-45.

[7] Morin E., *Les sept savoirs nécessaires à l'éducation du futur*, UNESCO, Paris 1999.

Knowledge and learning, however, as Morin states, are stimulated by means of an awareness which education and training alone can bring out in man. The relationship of the first Morin loop, the first cognitive network we could say, is the one which is created between the brain, the mind and culture. In this sense, man only becomes a human being when part of civilisation. The relationship between mankind and culture is the primary axis for the formation of human beings and the access to humanity by mankind, The second loop, a second network we might say, the one which comes into being between reason-emotion-impulse is another axis and illustrates the importance of emotions whilst learning and, again, they tell us, of humanity connoted by feeling human. The third loop, the third network, previously mentioned, enables man to prepare himself for receiving learning, knowledge, innovation and creativity from the social environment. Morin's model of the relationship between learning and humanity, between knowledge and relationships, between complexity and individuality shows us the reticular structure of living and the formation of the *self*, or growth and education of the *self*. The complexity of learning is moved between networks not only of knowledge but also of relationships. One could also call these networks of rules and networks of communication, which, neither ever being detached from the other and according to personal inclination, orient the person towards or away from learning, or rather knowledge, and lays down the communicative interlacement. As Morin highlights, knowledge for the construction and future innovation of know-how, whilst strongly connected to regulations and learning, is gained through self-knowledge and knowledge of others and of the world.

Networks are loops linked to other loops: relation, communication and relationship guide knowledge and learning. The complexity in which we are already immersed as individuals belongs to the world of mankind and invites us, by means of the dialogical-conversational, the communicative therefore, to *know how*, guiding us to the birth of *thoughts* and not only of the *single thought*. Beyond *thoughts*, ways of thinking, the different uses of thought, lies the possibility of other possible worlds[8]: this very possibility is identifiable with the innovation created by different perspectives, from taking a different point of view, from the existence of a *difference*, as Gregory Bateson would

[8] See Bateson G., *Steps to an Ecology of Mind. Collected Essays in Anthropology, Psychiatry, Evolution, and Epistemology*, University Of Chicago Press, Chicago 1972; See Bateson G., *Mind and Nature: A Necessary Unity*, Dutton, New York 1979.

have said. These are all forms of *diversity* which logically construct alternatives, understood as innovative and creative thought. The birth of these forms of action and vital, new and creative experience happens, therefore, by means of the dialogical circularity put into play by communication/conversation between information, knowledge and learning.

The Study Circle responds with surprising efficacy to this reticular model, of which it is the very incarnation and promoter. The Study Circle appropriates the concept of intentionality, an intrinsic feature of the training process, for itself and makes it the central and orienting vector of study. It is this intentionality that prepares trainees for the mutual exchange of knowledge. The intentional dimension directs the training process towards the construction of new learning, towards the development of new networks, towards the interpretation of the training even in situations varying greatly from the building of vital learning.

The Study Circle represents the space of the pedagogical meeting between creativity, learning and innovation *because of* and *during* the training communication which activates self-training, self-learning, cognitive flexibility, behavioural mutual aid, sharing and relationship building. The Study Circle proposes a pedagogical/training model where the process of creativity and of reflexivity are the key to access freedom of thought, free personal training action and self-training. The mutual exchange of learning and knowledge activated with the free circulation of ideas and with the use of the word "circle" acts on the individual's awareness of his own ability to improve his learning capacity as well as his own cognitive and organisational capacities. Communication and conversation are the flywheels of circulation, they are the means of fruition of the dialogue which, during the exchange, creates new meanings and builds innovation to transform minds, awareness and behaviour. A dialogue which creates the freedom to think and free thought.

2. *The* Tutor *as a Training Professional*

The training model sustained by the Study Circle finds its paradigmatic axis in the existence of individuals who fuel, by conversing, reciprocal education. Amongst those participating in the Circle in response to their own needs for training, a personal quest for answers, self help, learning and knowledge that travel by means of the use of

the many communicative languages available to mankind, is placed the figure of the educational professional often known as the *tutor*, or facilitator. Rogers gave us a thorough treatment of the figure and role of the facilitator examined in his famous text *On encounter groups* of 1970[9]. Here, the author defined not only a series of know-how and skills but also the function of the *tutor* in facilitating work or study groups and meetings.

On the one hand, as Rogers underlines, awareness of the role of the group in stressing the need for the meeting by participants is important, so too is awareness that the *tutor* and the participants will be able to gain of the dynamics of the group which, in any training situation, formal or informal, direct and condition the life of a work group. On the other, however, the specific awareness the *tutor* has of him/herself, as well as cultural knowledge, thorough knowledge of the theme of the Study Circle and organisational skills which affect not only the wellbeing of the system but also enable the learning needs of the circle participants to be foreseen are equally important. We could say that the training professionalism of the *tutor* stands out, when compared with other rising educational/training professionals for his/her «multiplicity and inter-disciplinary nature»[10], as well as his/her reflexivity[11].

What does inscribing the professionalism of the *tutor* within the educational professions mean? How should we redefine the *tutor* of Study Circles? By recalling the specific qualities of the *tutor* working in company situations, where the specific qualities of the study matter is a determining key of the know how/skills to be acquired?

Firstly, the multiple and inter-disciplinary nature. The *tutor*'s knowledge is multiple and is transformed into skills when the *tutor* uses it and works it into a practical activity carried out with the participants of the Study Circle. This knowledge can be defined as follows: «1. cultural and psycho-pedagogical skills; 2. technical-profes-

[9] Rogers C., *On Encounter Groups*, Harper & Row, New York 1970; See Rogers C.R., *I gruppi d'incontro*, Astrolabio, Roma 1976.

[10] Catarsi E., *Le molteplici professionalità educative* (*Manifold Qualities of the Educational Professional*), in Cambi F., Catarsi E., Colicchi E., Fratini C., Muzi M., *Le professionalità educative. Tipologia, interpretazione e modello* (*Educational Professionalism, Types, Interpretations and Models*), Carocci, Roma 2003, p. 11. See Pourtois J.P., Desmet H., *L'éducation postmoderne*, Puf, Paris 1997.

[11] See Schõn D.A., *Educative the Reflective Practitioner. Toward a New Design for Teaching and Learning in the Professions*, Jossey Bass, San Francisco 1987; Schõn D.A., *The Reflective Practitioner*, Basic Books, New York 1983.

sional skills; 3. methodological skills [...]; 4. relationship skills; 5. "reflexive" skills»[12].

The *tutor* has a delicate and strategic role within the Study Circle and it is right that the professionalism of this innovative figure, supporting the training process of the people he/she is accompanying, be elevated to the rank it deserves. Currently, however, no professional statute exists to determine the high educational professionalism of the *tutor*, often merely considered a guide, a good organiser but certainly not a training planner, a figure needing a packet of relationship skills that aren't even that sophisticated and which might normally described as just natural or "maternal". Educational professionalism, however, requires knowledge and skills that can be acquired in the field after a refined and culturally suitable training course. If the *tutor* is considered, even in professional papers, as an *inter pares*, we need to understand the concept of "one amongst equals". In fact, whilst on the one hand, the *tutor* shares the training of the participants by sensing their needs and directing their training requirements, he/she has a better vision than the participants for leading dialogue and conversation, can orient work choices, is able to summarise decisions and the aims achieved by the group because he/she has the cultural, training, intellectual and relationship skills which allow him/her to have an overall view beyond the immediate circumstances. We can state that he/she is able to sense and govern the future by virtue of in depth knowledge of the projects, processes, actions and experience. The fundamental capacity called into play is that of reflexivity, as Donald Schön illustrates so well in his texts of 1983 and 1987. Reflexivity, in some ways, saves all the other skills, gathering them together, coordinating and orienting them.

Cultural knowledge regards the in-depth knowledge of the mechanisms for developing a training process by means of a methodology which is innovative and generally developed, even at European level. In addition to this, a good grounding in the main psycho-pedagogical notions for leading groups and acquiring socio-relationship skills is necessary. Psycho-pedagogical knowledge provides the *tutor* with the awareness of being able to find the right answers in the right places.

Technical-professional knowledge concerns the specific field of interest for which the participants attend the circle. In this way, Study Circles in the firm need the *tutor* to know or be trained in the busi-

[12] Catarsi E., *op. cit.*, p. 27.

ness where the Circle is to be held. Certainly, the *tutor* must have "disciplinary" knowledge regarding business and enterprise. Knowledge of the industries from which the participants come, awareness of the production processes as well as the main mechanisms for making the products and of management of the firms mechanisms; the *tutor* needs to have knowledge of systems of company production and markets in order to respond better to the needs of trainees.

Methodological skills can be likened to organisational skills. They are important and can determine the success of the Circle. The method is the road for the construction of the training process. In this sector, planning knowledge, which is not just applied to the planning phase but also to the day to day re-planning of the activities of the Circle, is also a requisite. The whole planning phase for the work of the Circle requires all these skills, as do the production and request for documentary material.

Relationship and communication have always been "par excellence" skills. The ability to "listen" and "hear", watch and observe and at the same time plumb the darkness of one's own unconsciousness. The next paragraph is dedicated to the intersubjective learning shaping the human being each is called to be.

Lastly the reflexive knowledge that re-arranges and governs all the other skills. Reflexivity is the ability to observe metacognitively. But in this sense, perhaps, it would be more correct to talk of metacognition and metacognitive ability of the person: these are forms of «*practical* and *emancipative rationality* [...] that allow the realisation of action which is not so much and not only effective, but which is founded on a real awareness of the assumptions (cultural, personal, social, political) from which such actions derive, [...]»[13]. Therefore, at the basis of this professionalism «there are, yes, *skills*, and scientific knowledge – closely knotted together – there are also *abilities*, capacities to know how and intervene, characterised by an articulated sheaf of specific techniques, both, however coordinated by behaviour (mental, cognitive, above all) based on *reflexivity*, aimed at globally and critically reading the process entered and/or started. Between knowledge, ability and reflexivity runs a rapport of distinction and integration together»[14].

Reflexivity is needed when re-thinking action during the course,

[13] *Ibidem*, p. 31.

[14] Cambi F., *Una professione tra competenze e riflessività* (*A Profession Between Competence and Reflexivity*), in Cambi F., Catarsi E., Colicchi E., Fratini C., Muzi M., *op. cit.*, p. 46.

for steering the *operari*. Reflexivity «assigns a curvature to training knowledge»[15], turning back on itself and controlling but, at the same time, stimulating and directing the entire training process. Reflexivity affects the training process like a scalpel, a current or a wave[16]. Whilst directing it, the function of the current drags and carries the training process to where it wants to be. Likewise, the training process is observed and investigated by dissection and decomposition of the knowledge. Reflexivity influences, in general, the deed of educating and, in particular, the singularity of the case for analysis. This does not mean influence in technical terms or, worse still, following a printed form; it is a continuous, constant action that must be repeatedly subjected to examination and interpretation. As a *tutor* in the classroom or a *tutor* of work groups, a member of training staff in the field of adult education or educator in the many services accompanying the individual throughout a life-time, the job of working on man and with man, as educational professionals are called to do, requires a high degree of flexibility and a high capacity to interpret situations and experience, in a field where a continuous and constant process of innovation of action, instruments and models must be stimulated.

«Years ago, Schön drew attention to the "reflexive professional" as a new need in the employment market of that time, in which each professional should become flexible (= capable of innovation) and for which he/she should also refine his/her profile (for many, including knowledge and the know-how that implies). The more so in those professions whose subject matter is changeable, procedural and autonomous; and so much more so for those where this individual is received as it is being made, during the process which makes it a specific subject (= subject-person)»[17].

3. Capability: *from the Knowledge to the Capacity of the* Tutor

The Study Circle *tutor* must not only possess clear, strong knowledge of certain key areas of the organisational, relational and method-

[15] *Ibidem*, p. 48.

[16] Cambi F., *Manuale di Filosofia dell'Educazione* (*Philosophy Manual of Education*), Laterza, Roma-Bari 2008.

[17] Cambi F., *Una professione tra competenze e riflessività* (*A Profession Between Competence and Reflexivity*), in Cambi F., Catarsi E., Colicchi E., Fratini C., Muzi M., *op. cit.*, pp. 49-50.

ological management of human resources but must also be able to convert theory into skills and technical and practical abilities: *know-how*. Knowledge and skills must become *capabilities.* What are capabilities? According to Martha Nussbaum's *capability approach*[18], each person is an individual and bearer of capabilities and functions in a ever-active reciprocity with the next person; the author and character/interpreter of his/her own life, not guided by principles, rights or worse still by governors or laws imposing canons of justice. The human being is such when free to fulfil the capacity to live, experience feelings, feel equal and be aware of his/her own emotions and suffering.

Know how, as a right to the perception of viable possibilities, becomes the characteristic of human recognition. In this sense, the *tutor* is not a technician who must simply acquire certain skills, he/she must be *capable* of recognising the educational professionalism by which he/she is distinguished and, since education also implies training, this leads to an awareness of the form man must take, on one side, and give, on the other, in educational work. The *tutor* of equal standing with the people whom he/she finds him/herself interacting in the Circle, will build his/her own *forma mentis*, and that of the others, for the purpose of coordination, facilitation and stimulation[19]. This *forma mentis* will be the *telos* of research carried out during the course of the training within the Circle. The capacity to comprehend, that is to say be able to understand the "comprehension of the other person", implies a constant and «continuous reflection on one's own *operari*»[20]. Comprehension is always *in situe* and entails knowing how to look around and be able to lower oneself into the training situation that is being created. It involves learning to pay attention to details, glances and behaviour in order to bend appropriately the action to be completed. Consideration for others is a capability which finds expression in the work place through care for detail and foreseeing problems by reading the mind of others through the exercise of intentionality. Paying attention means being able to draw remedies to propose or conflicts to appease from the detailed reading of behaviour.

[18] Nussbaum M.C., *Woman and Human Development. The Capabilities Approach*, Cambridge, University Press, Cambridge 2000; See Nussbaum M.C., *Cultivating Humanity*, Harvard University Press, Cambridge 1997.

[19] Cambi F., *Una professione tra competenze e riflessività* (*A Profession Between Competence and Reflexivity*), in Cambi F., Catarsi E., Colicchi E., Fratini C., Muzi M., *op. cit.*, p. 51.

[20] *Ibidem.*

In Circles set up in firms, this means directing attention to the transfer of knowledge so that this transferability becomes a source of innovation and the creation of a new way of thinking and acting Learning in situe is the accomplishment of a capability that must be formulated and built from reflexive capacity, «by taking on that mental attitude of mediation between *generalia* and "case", typical of the logic of understanding»[21]. One further capability of the *tutor* emerges from the analysis of the case/s the circle participants are to consider. One of the many examples, in fact, concerns the Circle of people working in tourism held in Tuscany who observed the work of another Circle formed in Sweden[22]. By case analysis as part of the Study Circle, an understanding of the reasons for the differences in the actions to promote and support an increase in the influx of tourists was attained; the cases were analysed by each participant involved and each was able to widen their knowledge and potential for transforming production processes to influence each participant's own situation. The *tutor*, in such cases, must be aware of the capacity to stimulate observation, dialogue and conversation along lines that can produce a change of thought from the analysis of signs, a semiotic capability exactly, and lead from the study of the origins of the problem to the construction of aims and the attainment of the purposes In this case, this attainment of the purposes is represented by the possibility to understand change and comprehend different strategic management and from the potential to be able to interpret diversity as an added value. The *tutor* must be capable of concision between the study and the analysis of the cases, but even before this, must know how to and where to direct this concision. He/she must be able to foresee the results because he/she is *capable* of making them out beyond and through the lens of the differences and diversities in points of view.

We can therefore affirm that there are three lines/capabilities that lead the *tutor* to reflect on his/her own action for transforming and guiding the Study Circle, and especially the one activated for the transferability of innovation to the firm. The first line is interpretive/hermeneutic and sustains reflexive capacity, thinking of actions in the work place, hinging experience to the case being studied and trans-

[21] *Ibidem.*

[22] Whilst wishing to remain on a level of general description, we are referring to the EDA EDU, Leonardo da Vinci Project, *System Actions for Study Circles in Vocational Training*, 2007-2009.

forming knowledge from the general to the local. The second line involves the *clinical* capacity for training communication and educational relationships, which look at individuals and their inner-selves and therefore their formation. The dialogic exchange moves the thought thus prompted from the need/motivation to collecting new data to conclude the quest undertaken. The third line involves the critical capacity to assess, select and distinguish actions into innovative or conservative facts/experiences

Capacities represent the staging of training work which, if appropriately and consciously lead, ferries individuals towards the conquest of new scenarios of thought, new dimensions of individual and community action and creative and innovative change in the person and behaviour of the individual.

4. *Relationship, Communication and Dialogue*

An especially important capacity is that of dialogue/relationship/communication. The very position, determined by the duties of the *tutor* at the centre of the Study Circle and by virtue of the qualification of the education-professional figure he/she designates, warrants further reflection. In addition to the importance of methodological, organisational and "disciplinary" knowledge, it is thought that communicative know-how is not only a central ability, but the very key to interpreting mankind's art of granting and receiving humanity through knowledge.

The communicative/relationship dimension is the art of being, it is the fulfilment of the rapport between learning, knowledge, relationships and the ethics of life. Rogers affirms in his celebrated volume, *On Encounter Groups*: «One doesn't enter a group as a *tabula rasa.* [...]. I trust the group, given a reasonably facilitating climate, to develop its own potential and that of its members. For me this capacity of the group is an awesome thing. Perhaps as a corollary of this, I have gradually developed a great deal of trust in the group process [...]. To me the group seems like an organism, having a sense of its own direction even though it could not define that direction intellectually»[23]. These comments, introducing the role of the facilitator, help show

[23] Rogers C.R., *I gruppi di incontro* (*On Encounter Groups*), Astrolabio, Roma 1976, p. 49.

that the *tutor* must consider the group in which he/she is working as a system to be trusted In one way, as Rogers states, if the leader has faith in the training process, the group will express «wisdom of the organism»[24], thus facilitating the group to develop its potential as a whole and as each individual component.

What Rogers is outlining is a hard task because it commits the *tutor/facilitator* as a whole person, indeed, every *tutor* must be completely present as a person. It is not difficult to find in these attitudes traces of those which Nussbaum also defined as being at the very foundation of human capabilities Participating with the whole person means affirming one's own existence in its duplicity of cognitive and emotional aspects. It is not easy to understand and make oneself understood that only work on both sides will enable thought to be free to operate, once released from the profound bonds which lack of self understanding exercise on the unconscious, preventing individual and cooperative learning.

This web, now clear to neuro-scientists as well as to many educationists, can be expressed in Rogers's words, ideas are permeated by feelings and feelings are permeated by ideas[25]: This can be translated into the affirmation that a human being can conduct or participate in a work group only by being wholly present. This being wholly *present* determines the freest action of thought, the circulation of ideas, the predisposition towards the mind of the other person, the possibility to be open to the recognition of the new of which the other person is the bearer. It is not difficult to read in this *behaviour* between people in a group meeting and also in a work group, the birth of thought, the novelty of thought, the transfer of thought and the creation of thought and continually thinking innovation. Sometimes the search for an idea, the new, the possible, seems much more complex; however, as Buber teaches us in his booklet *The Way of Man*[26], the answer is near to the place where the very search is made. It is thus possible to affirm that it is within ourselves and not outside that we need to look. In one way, we could say that relationships and communication, and the certainty of their efficacy in training and dialogue between the members of a group, are vehicles by means of which creativity of action and thought travel and become *practical* steps.

[24] *Ibidem.*

[25] *Ibidem*, p. 51.

[26] Buber M., *Il cammino dell'uomo* (*The Way of Man*), Edizioni Qiqajon, Bose 1990, pp. 56-57.

The stages for the leading of a group by means of the art of interpersonal relationships, since an art it is, can be summarised according to Rogers's lines. There are no technical rules to facilitate inter-personal dynamics but there is a readiness, in the person who is the *tutor*, of the soul, mind, heart, gestures and body. As the first task, the *tutor* has the duty of creating the atmosphere: «Partly because I do trust the group, I can usually be quite loose and relaxed even from the first. That's overstating it somewhat, for I always feel a little anxiety when a group starts but by and large I feel, "I don't have any idea what's going to happen, but I think what's going to happen will be all right," and I think I tend to communicate non-verbally, "Well, none of us seem to know what's going to happen but it doesn't seem to be something to worry about". I believe that my relaxation and lack of any desire to guide may have a freeing influence on others»[27]. In this phase, the listening and attention that the *tutor* brings to the person he/she is talking to is the deed of care which manifests the importance of the word and of dialogue, but at the same allows a model for syntony and "hearing" the other person to be developed. Listening is a decisive factor and it is always necessary to listen to a new idea, or equally, the tale of problems at work.

Listening means "validating" the person who gives words and his/her own experience. If this attitude must be built as quickly as possible, and it is certainly a feature of the first phase of reception and expression of needs, we know that profound listening is a relationship style, and even becomes a quality of communication. Listening is what makes the difference between information and communication. Learning takes place by means of communication, whereas information soon turns to dust and is forgotten by the adult mind. In addition to this, in fact, the adult learns because he/she anchors learning to experience, always qualified by the dual register of rational and emotional cognition. Listening must also have the characteristics of selectivity and directivity This means that the *tutor* must be able to listen not to the fact or the event as it is told, but the meaning and the emotion moved in the person as he/she is speaking.

The participant of a Study Circle must be able to rely on the understanding of the *tutor*, capable of gathering the *feedback*, whether this regards a personal gesture of the person talking, or whether it regards the explicit request to focus on a problem in the work place.

[27] Rogers C.R., *I gruppi di incontro* (*On Encounter Groups*), cit., pp. 51-52.

Circle participants must be able to have the support of the *tutor*'s capability to listen on just as much an emotional plane as a more technical one, regarding the identification of the training needs of the Study Circle members. Nevertheless, there must be give and take, as Rogers states: «I think I manage, usually, to hear when a participant is frightened or hurt, and this is when I let him know with some sign, verbal or non, that I understand his situation and that I am by his side as he lives that hurt or that fear»[28].

As the second duty, the *tutor* must know how to accept the work group. Perhaps the daily *routine* of work stifles enthusiasm for sharing dialogue and communication. At the end of the training course, the capacity to accept the group just as it was formed is always rewarded[29]. In this case, the capacity of the leader of the group is exactly that of not being the leader, but of ensuring that the participants know how to orient themselves during dialogue and the training activities, whether these are the observation of certain production processes or the lesson of the expert the group itself asked for.

A high degree of work experience and knowledge of the dynamics of the work place will enable the *tutor* to take a back seat and thus empower participants with self-direction. As a matter of fact, this is also a feature of the Study Circle, a light and flexible training model, which, however, requires greater care and attention to every tacit aspect of inter-personal communicative interaction. Training care, in this case, is the capacity to 'veil' the presence and act *as though* playing host behind the scenes.

This ability requires learning how to withdraw participation without creating any discomfort. The circle participants are the ones who must activate their own resources and, as adults, must be able to do this by means of effective, authentic, congruent and empathic[30] communication.

Acceptance of the group and its members for what they show and for how they place themselves, also means understanding conflictual dynamics which, dictated by projected identity, are used between and against members. The *tutor* must know how to handle conflict, always the bearer of transparency and personal transformation. The management of conflict implies a good dose of creative ability. Innovation also originates from the resolution of conflicts.

[28] *Ibidem*, p. 52.
[29] *Ibidem*, p. 53.
[30] Rogers C.R., *A Way of Being*, Houghton Mifflin, Boston 1980.

As the third task, the *tutor* must know how to express empathic communication. Of all the capacities required of a professional educator on a daily basis, the use of empathy is, perhaps, the most complex and difficult. Resistance within the other person, operated by virtue of the humanity that distinguishes every human being, is as arduous to reach as it is deeply seated and the more profoundly seated, the more it interferes with the training process and the learning course for the transfer of knowledge.

Empathy is the profound and complete perception of "feeling for the other person"; it is the most complete human means for understanding moods and dimensions of suffering and emotion which each person operates in his/her own humanity; it is the perceptive act that creates a bridge to the other person and enables communicative action. Empathy is the deepest and truest form of communication that can be created between two individuals. Only empathic communication is communication, any other form always hides the perils of the un-said, the mystifying or the misuse of power. Empathy is the experience of the subjectivity of others, of the emotion of another, of the feelings of another, without ever having lived the same feelings of the other. Empathy is a profound, authentic, real and true "as if". Empathy allows communication to circulate and permits fertile dialogue from which new meanings and new experience are born. What differentiates empathic communication from informative communication and superficial relationships is that only from empathic exchange is it possible to learn*in* experience and *from* experience. In order to practice empathy, a very profound self awareness and a responsible act of ethical self-observation are necessary. Because only in complete, ethical authenticity will it be possible to support the gaze of the other person.

At first glance this might seem very difficult, as perhaps it is, and too much to ask of the *tutor* in the Study Circle. In fact, it is necessary to promote the possibility of learning empathy by using it.

Communication is a fundamental axis of the dialogical training model of the Study Circle for culture, in business or ones aimed at transferring innovation to businesses. It is used in every situation, the presence of the person, who is a person and a human being, requires the entirety of this presence which is created by means of the reflection in the other person and by means of the *feedback* which each member of the circle gives to whoever asks. The practice of empathy is not an accessory task or one task among many; in a work situation based on the use of the word it is the principle task, without which every other effort will be costly and in vain.

Expressing empathy is the same as reaching ever deeper personal meanings, elaborating the capacity of the group to know how to speak ironically in order to achieve a concrete experiential result. Empathy is an instrument, but it is also a purpose and, in addition to this, it is an ethical purpose of the individual, as *tutor*, guiding the Circle as it learns.

5. *The Care of the Study Circle*

Everything expressed so far to focus on and describe the role of the *tutor* can be defined as the work of care necessary in following and orienting the Circle to carry out, as a community, the training action of the individual members. The work of care is the highest pedagogical level in the formation of man, even in technical, practical terms. It is stimulated by practice and implies a high theoretical awareness.

To summarise the phases of the work of the *tutor*, he/she must be able to create a positive climate of reciprocal welcome by means of communicative capacity characterised by listening and empathy. He/she must stimulate the expression of tacit demand, and for this reason must be able to read beyond the data supplied by the participants. He/she must know how to stimulate motivation for reciprocity, but also knowledge and learning.

This step comprises two phases: in the first, the deep training needs of the participants that are never separated from the learning requirements linked to the specific aims of the circle; in the second phase, it is important to gain the unexpressed demand for the production of knowledge linked to entrepreneurial ability and to the production processes of the firm or company. This is an extremely delicate moment, because the credibility of the chosen training model will be at stake.

The *tutor* must be able to lead the "red thread" of the training events and know how to follow a planning line for the development of the learning work with skill, choosing the necessary types of training; inter-personal dialogue in a group, the expert's contribution or outside visits to other production environments for comparing, observing and opening the mind to the differences. If it is true that the planner of the training plans the events, it is even more necessary for the *tutor* to carry out that function of connection, interpreting the hidden dimension, which attribute his/her with a delicate, silent but

important and decisive role in the successful outcome of the training within the Study Circle.

The *tutor* must also know how to prepare materials, plan tools of reciprocal knowledge, lists, addresses, mailing lists, log books and even *blogs.* All this for creating a link between the figure of the expert and the needs of the participants of the circle. Care of motivation is the primary task of the *tutor* who must have the ability to create the climate of trust and hope necessary in any training job.

This is a job of care, first and foremost of the self, of another person and of every educational relapse in the living and working environments of the participants of the Study Circle.

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CAPITOLO VI

EVALUATION OF STUDY CIRCLES AIMED AT TECHNOLOGY OR KNOWLEDGE TRANSFER

Klas Lénberg

1. *Classic SC vs. Transfer SC*

Today's Study Circles might have their roots in the Islamic early learning circles around some better-known Muslims in the mosques, in the early universities where the students gathered around their professors for seminar type of discussions, in the old master and disciples model of the east or the Greek philosophers street discussion. However, the modern Study Circle, born in Scandinavia about a hundred years ago, differed from the older forms – it had more to do with the empowerment of the individual then with the content of the topic discussed. A rising class of farmers and later on industry workers took part to learn that they had a right to speak and to act politically. In the circle they learned that their knowledge had a value and that others wanted to listen to them. Later on the circle became more focused and the pedagogic come to be used for language learning and the like. In Scandinavia today you will find Study Circles on many different topics – from cooking to today's hottest political issues.

2. *Evaluation of Study Circles: a Question of Objectives*

As we just said, the objective of the classic Study Circle is to empower the individual. The objective of a Study Circle for technology or knowledge transfer to SME, on the contrary, is to empower the participant's organisation, the SME. The organisation will always to some extent be empowered if the employee is empowered, but real effects on production, marketing, etc. might be missing due to a number of hindering factors. Some might have to do with the individual's personality – for example unwillingness to share his/her new knowledge with those that can use it if he/she can not use it him/herself – others might be due to bad timing or the organisation's reluctance to take on board the new knowledge.

We could look at it all as a black box – just asking for the effect in

the organisation, disregarding why there is or is not an effect. This, however, would not give us information to improve on the circle next time we run it. If we want to improve on what we are doing we have to use a method that will give us information about the individual and about the individual's organisation. If the individual did not learn anything he/she can not take anything home. On the other hand, if he/she learned something but the organisation for the time being has no use for it or is not willing to take it on board, there will be no impact. Non-willingness can have to do with lack of take up capacity and/or organisational deficits.

In short, for the evaluation of effects of the transfer type of Study Circle we need two sets of data – one that has to do with the participants and the circle as such and one that has to do with their organisations and effects in them. We need both sets to be able to explain how come there was or was not an effect on the SME.

3. *Can we Reuse the Models for Evaluation of Classic Study Circles? Evaluations with the Focus on the Individual and the Circle as such*

There are a number of ways to evaluate classic Study Circles. Most of them build on the idea that the participants themselves should decide on the goals at the start. A common method is to let the participants articulate what they want to get out of the circle in the beginning and then at the end ask to what extent they got what they wanted. The articulation is often in the form of a set of relevant variables – knowledge about x, knowledge about y, getting to know the others, etc. – that will be used as a base for a kind of progress scale. The progress scale is developed by asking the participants what would success mean and what would the very opposite of success mean for the different variables. At the start the participants are then asked to mark on a line between the success and failure where the group – or themselves – are at the start and then keep marking after each meeting with the circle. With the help of the recurrent information the circle leader can refocus on areas where progress is too slow and by that improve on the final result.

This model functions well if the participants are allowed to decide on what should be learned. However, for obvious reasons, it will be hard to get SME people to attend Study Circles that do not have a well defined knowledge territory to discuss and learn about. In the

future this technology/knowledge transfer model is most likely to be used by government/regional/local organisations supporting SME or business associations and the like that will offer this kind of services to selected SME trying to enhance their competence in specific strategic fields. If, as in the EDAEDU project, a specialist should be brought in to complement the circle leader his/her competence field must be defined in advance, at least for the first meeting. I.e. the topics will be rather well defined from start. For efficiency and cost reason it will therefore perhaps be necessary to use a more controlled approach then what is common in classic Study Circles. I.e. we can not use those evaluation methods as they are. Still, we have to find out if the participants got what they expected and if the circle as such functioned as a learning vehicle. And it is still basically a question about the difference between the knowledge level at the start and the knowledge level at the end.

4. *What is a Result?*

Depending on what you want to achieve and what your terms are with a Study Circle for technology or knowledge transfer to SME a positive result can look differently. Let us just take a look at a few variables that are likely to influence the results and how you look at the result:

Competence level of the participants at the start.
Knowledge level of the knowledge we want to be transferred.
Knowledge relevance for the participants and for the SME.
Pedagogic model - classic circle, seminar or semi-lesson, blended-learning, internet, etc.
Terms of impact - knowledge fit in target SME, implementation context in target SME.
Secondary effects and their importance - learn to learn effects, business contacts, etc.

The competence level of the participants will set the limits to what could actually be learned. It will also be the base for the expectations the participants aim at the circle and the circle leader. And set the limits to what pedagogic can be used.

We know from experience that it is important that the competence levels of the participants are not too different. A mixture of participants with too great differences in competence level will mean problems of finding the right "pedagogic" level for the circle leader. It will

also lead to that those with more knowledge will be bored and uninterested in discussing with those with lower competence. And the other way round – those with lower competence will not like to take part in the discussions because they do not like to show their incompetence. A bad result could be the consequence of a bad participant mix.

Knowledge level is of course a continuum, but for sake of simplicity we can talk about three levels: facts, easy to understand "theoretical/complex" knowledge and difficult to understand "theoretical/complex" knowledge. In the EDAEDU project there were three groups; tourism, lean production in mechanic industry and composite material for boat building. The tourist groups talked about different ways to care for in- and out-going tourists, about places to visit, etc. The lean production group talked about how to continuously improve on production. The boat people spoke about the complex relationship between different plastic materials, different ways to apply those materials and the importance of size, temperature, etc. for the final results. It is not very likely that the tourist participants did not get something of interest with them home, but it is quite likely that a mini SME boat builder could not follow all of what was said about resins, etc. If our aim is fact transfer, we are much more likely to succeed then if it is transfer of "theoretical/complex" knowledge.

The most important thing in all communication is that the "customer" recognises his/her own reality in the message, that it is relevant for him/her. It is quite likely that the transfer effect will be greater if the circle leader and/or expert starts with a lesson on some topics the participants have expressed interest in advance. It is important that the participants from the very beginning trust that there is something to be learned. As mentioned above, in the case of Study Circles for technology or knowledge transfer it might be expensive to let the attendants decide on the subject at the first meeting, so in practice we are probably talking about participants accepting an offer – that offer should be about something relevant to the participants and their organisations! We are quite sure of a bad result if we force SME people to spend their time in vain!

By pedagogic model we mean how the circle is run. When talking about Study Circles for technology/knowledge transfer the objective is not just learning anything or general empowerment of the individual but actual actually learning something that could be of use for the SME. This means a mixture of free discussion – the participants learn from each other – and a systematic refocusing on the targeted knowledge by the circle leader. This could be done in several different ways.

In the EDAEDU case we always had at least two circle leaders – the leader as such and the expert – meaning that this mixture could be very complex… Bluntly speaking, the major problem is the balance between on the one hand the give and take between the participants and on the other hand the "teaching" of the expert. A circle that is too much of the one or the other is probably heading to a bad final result.

Terms of impact are a most important set of variables. Some are easy to measure – like if the SME already has somebody responsible for development, if there is a special unit for development, etc. – but some of the most important are hard to get at. The most important of all is probably the SME management's general attitude towards learning and use of new knowledge. Here we can only hope that if the manger sends somebody to a Study Circle he/she does so because there is a real interest and that there will be an apparatus to take care of the knowledge acquired. There is also a circle side to the terms of impact. It is important that the circle leader informs the participants in a Study Circle for technology or knowledge transfer that they are going to face terms of impact. That they have to meet different kinds of resistance and that they have to make up some kind of strategy if they and/or their company should really profit from what they learned. Lack of understanding what there is to expect might discourage the learner to talk about the new knowledge when he is back in the company.

Secondary effects could be desired or not. However, obviously, one of the desired secondary effects of a Study Circle containing a number of SME people would – or should – be new business partnerships. A secondary effect of a transnational Study Circle could be better understanding of how people from the other country think and argue. Etc. Depending on how one values those secondary effects a circle could be more or less successful. If there is no transfer of knowledge during the circle but the participants decide to meet again to set up a common project that demands more knowledge then what they got at the time of the circle, the circle is obviously very successful as it has articulated a need for knowledge directly linked to the SME production.

There are many more variables that could have effect and/or be considered as relevant when arguing for what is or not is a good result of a Study Circle aimed at technology or knowledge transfer. What we want to underline is that a simple measurement of impact in the SME is of little value as there are many other possible reasons then the circle as such for a bad result.

5. *A few Words on Mmethod in Evaluation of Impact of Social Activities in General and SME Activities in Particular*

A Study Circle is a social activity depending on trust between the participants and between them and the circle leaders and experts. It is very important that evaluation methods do not interfere with the activities going on or that the participants will get any reason to start to worry about their role in the circle or that they will be exposed in a unwanted way to the others. If observation is used as a method to study the dynamics of the circle it should be known to the participants that they are observed. If questions are asked anonymity should be guaranteed. All results should be presented in such a way that no single person – or organisation – could be unveiled.

However, after all those warnings, do not forget that most attendants to Study Circles have a positive attitude to the circle as a learning method and are willing to make the social parts work for better learning effects. I.e. it is mostly perfectly right to use open methods like general discussions about what happened in the circle, what was good and what should be improved on, etc. If you do this at the final meeting the effect on the circle as such will of course be minimal. But, it might influence the relationship to your organisation and between the participants in the future.

SME people have one thing in common – shortage of time. Do not use evaluation methods that take too much of their time. Neither because of length of forms nor because of too high a complexity. Always try to get as much of the needed information as possible from other sources. For example number of employees could often be found on the company homepage.

6. *A Shopping List for the Development of Evaluation Instruments for Study Circles Aimed at Technology or Knowledge Ttransfer to SME*

We are not going to give you a set of complete forms for participants to fill in. Evaluation should always be geared to the objectives of the activity and to the further use of the results. If you are just running one Study Circle once, your focus should be on making that one as good as possible. If you intend to run a series of circles – try to get data so you can improve on the first as well as on the last circle!

We talk about three plus one phases – before, during, after and after some time – and two actors – the participant and his/her company.

A. *Before measurements*
Try to find out:

- *why* people have decided to spend time on the circle,
- their *expectations*. What and what is a good result,
- their *competence in the specific area*,
- their *general competence* – i.e. educational background,
- their *learning behavior* (use of internet to update them selves, etc.),
- their *organisation's – the SME – preparedness to take on board new knowledge* (is there a unit for development, somebody responsible for taking on board new knowledge, etc.),
- their *organisation's general attitude towards learning* (how many employees that lately have been sent on training, etc.).

B. *During measurements*
Try to find out:

- if the *circle leader – and the expert* – are doing their job in a nice way…,
- the *social dynamics* of the circle – i.e. to what extent the circle is a give and take between all involved or just monologues by the circle leader and a few self-assured participants,
- the *learning dynamics* of the circle – i.e. to what extent the circle is driven by the participants demand for usable knowledge or only a kind of seminar driven by the expert's habit to reuse old lessons… (the key measurement is about if there are follow up questions from the participants or not. A discussion that has no follow up questions – just direct answers – is no real discussion),
- the *learning focus* – to what extent the circle really is about what it was intended to be, or what the participants asked for, or if it has a tendency to be just a kind of social gathering where the participants are kind to each other and
- support each other's small talk...

C. *After measurements*
Try to find out:

- if the participants *got what they expected*,
- if they got something they *not expected…*,

- what could be *improved on*,
- if they would *like to attend another circle of the same kind* – i.e. if they think that the learning method was so good that it was worth the time spent!

D. *After some time measurements*
Try to find out:

- if the knowledge has been *put to some use* in their organisation,
- if their organisation *profited in some other way* by the participants taking part in the circle (i.e. presence of secondary effects like new business relations, new learning possibilities and the like),
- …if the management think it was a good investment in time and if they would like to send somebody to another circle of the same kind.

Be constructive! If there is some particular knowledge you want the circle to transfer you should of course measure the take up of that particular knowledge.

7. *The Perspective*

A Larger Perspective

We have here only talked about the micro cosmos – the people in the circle and their companies – but there is of course also a larger perspective. A Study Circle for technology or knowledge transfer could be continuous and have secondary effects on a business community, on a region, or... It all depends on how we set the circle up from the beginning – perhaps intermittent run by a business community – and how we support the further transfer of what is learned – perhaps by running parts of it during a greater fair and letting other attendants at the fair be passive participants via monitors at strategic places.

If you decide on using the circle more like a general vehicle for marketing of new technology and knowledge you will of course have to use more and different methods for evaluation. You will find them in books on mass communication and programme implementation and the like.

A Smaller Perspective

The circle method could of course be used inside the SME for transfer of new knowledge to different employee groups. A number of studies in Sweden have shown this to be a very good method. The Study Circle is – as said before – a friendly method very well suited for persons with little school background and/or low learning self esteem.

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