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Experiential knowledge transmission

This paper addresses the question of experiential knowledge transfer. It shows that “training” responses in companies need to be designed with the stakeholders, looking as closely as possible at the work activity and the actual conditions required to successfully carry out the complex activities in which experiential learning is put to work. After setting out the focus of the research – experiential knowledge transfer – and providing some theoretical background information, this paper gives recommendations to companies or consultants wishing to better address this issue and improve their practices.

As the working population ages, companies are faced with a twofold challenge: facilitating job-keeping for employees aged 55 and above, and supporting the transmission of experiential knowledge by senior workers wishing to retire, the actual number of which varies by business sector. In order to deal with these skills development and knowledge transmission challenges, which will gradually

increase as will the recruitment difficulties which certain branches or territories are already experiencing, the French government and trade unions have initiated a number of measures. Examples of this include the 7 January 2009 National Interprofessional Agreement on Lifelong Training and the 13 October 2005 Agreement on Senior Employment, both including recommendations on mentorship as a means of passing on knowledge and know-how. They recommend expanding mentorship, tutoring and

any other means of knowledge or know-how transmission, as a win-win relationship, benefiting both the employees providing the knowledge and those on the receiving end. In a political environment where sector- and enterprise-wide

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initiatives remain limited, the time appears ripe to look into the obstacles and conditions conducive to developing such practices, as well as their effects, both from the companies' standpoint and from that of persons directly involved in the systems. What processes should the companies institute? How can they prepare and support mentors and mentees? How can people be helped to overcome difficulties in transferring their skills or reluctance to do so? These are just some of the questions that emerge from practice in this area. The issues at stake in experiential knowledge transmission are thorny and complex ones, whether for the companies, the OPCAs¹ (*Organismes Paritaires Collecteurs Agréés*, or recognised fund collecting bodies) or the training bodies called upon to provide support in such projects. "Training" responses need to be designed with the stakeholders, looking as closely as possible at the work carried out and the actual conditions required to successfully carry out the complex activities in which experiential learning is put to work.

After setting out the focus of our research – experiential learning transmission – and providing some theoretical background information, we will endeavour, based on the evaluation we have led of the TSE project: *Transmission des Savoir-faire d'Expérience*, or experiential knowledge transmission, to derive recommendations for use by companies or consultants wishing to better address this issue and improve their practices. This project has been carried out by the Forcemat OPCA² (fund collecting body for companies which produce materials for the building and the industry sector) with the financial support of the European Social Fund, to derive recommendations for use by companies or consultants wishing to better address this issue and improve their practices.

Experience: what it's all about

While there is universal agreement today as to the virtues of experience – people strive to develop, transmit and recognise it (VAE, *Validation des Acquis de l'Expérience* or validation of learning through experience, the Social Modernisation Law, January 2002), the concept of experience remains polysemic and refers to a wide variety of forms and uses. It is something gained, often associated with seniority ("to have experience"), or a moment in time ("to experience something") or a learning method ("drawing upon experience"). This approach to experience, as a means of learning, puts the correlation with seniority – which we will address later in this paper – into perspective. It is known that perform-

¹ Any company subject to the mandatory tax to fund vocational training may be required to pay all or part of its contribution to the bodies instituted by the labour partners, with State recognition, to which they belong. In exchange, the said bodies develop local services for the benefit of their member companies or employees: consulting, information, assistance in designing training projects, etc, and cover funding for the resulting training initiatives.

² OPCA for the concrete, shingles and bricks, ceramics, quarrying and materials sectors/industries.

ing an action and repeating it does not guarantee learning unless incorporated into a process that leads individuals to step back and analyse what they have experienced, so as to draw lessons from the experience and apply them more generally. Even when the individual is faced with potential learning situations, the key is indeed the ability of organisations and individuals themselves to create the conditions conducive to the new process being instituted.

Philosophers, pedagogical experts, didacticians, psychologists and, more recently, managers, have long taken an interest in these questions. To list only a few examples: Aristotle stated, over 2 300 years ago, that “the things we have to learn before doing them, we learn by doing them”. In the 18th century, Rousseau (2001) set out the principles of an experience-based education and inspired many a new idea. More recently, Piaget (1974) was one of the first to model the processes at play in experiential learning. According to him, most of the knowledge individuals use is unconscious and, in order to “derive a lesson from an experience”, the said experience must be illuminated and subject to thought. The American psychologist Kolb (1984) later added to the Piagetian model by developing an experiential learning cycle, “Kolb’s Learning Circle”, based on an alternating cycle of reflection and experimentation. Lastly, John Dewey (1938), an American philosopher and teacher, contributed his reflections on the ties between theoretical knowledge and practical knowledge. According to him, there are two ways for individuals to learn through experience: through trial and error, which enhances their operational and emotional experience, and by reflecting on their own action. From that action, a theory will emerge which, in turn, will guide their further action.

Recent research in professional didactics on skills development in and through work provides further insight into these issues. According to Pierre Pastré (2005) “there can be no action without building experience, and thus learning”, though he still distinguishes between “incidental learning”, unintended and of which one is not necessarily aware, and “intentional learning”, which refers to action undertaken for educational purposes. This intentionality leads to a further distinction between “non-didactic situations” and “didactic” situations. While rote learning, arising from situational chance, falls within the former category, setting up a mentoring system can under certain conditions (intentionality, mediation, time of reflectiveness, etc.) meet the definition of the latter.

The summary put together by Guy Le Boterf (1997), based on the work carried out by Kolb and Piaget, echoes the approach that we suggest with regard to professionalising processes in organisations (Conjard & Devin 2007). He suggests an experiential learning loop that emphasises the need for distance and reflective analysis on the part of the subject, with regard to the practice in

question. That reflectiveness, which he refers to as “the third dimension of skill”, comes in addition to the first two, namely, action and the use of resources. It entails a stage of explaining and retelling of the experience. For the individual to do this alone is difficult, and it is generally necessary that a mediator (coach, mentor or facilitator) be present to provide guidance.

Ultimately, it is less a matter of determining how to pass on the skills (in the sense that they would be “discharged”) as understanding how to foster their production or transformation (in the sense that it is ultimately up to the learner to build his/her own skills). While we may in a linguistic shortcut occasionally use the term “skills transmission”, this is indeed a matter of construction. As Guy Jobert reminds us, “skills cannot be passed on, in the sense that the scholastic model would have it; it is more fitting to refer to construction, and development”³.

This theoretical background may help us better understand the mechanisms behind experiential learning and the difficulties encountered in many situations. It is with this knowledge in mind that we evaluated the TSE project developed by Forcemat OPCA in some fifty of its member companies.

An approach to facilitating the transfer of experiential knowledge

The “intermediary” role played by local bodies such as the OPCAs, professional organisations (CPNEs, observatories) and consultant-instructors, has proved decisive in raising companies’ awareness and supporting them as they take into account and settle some of the aspects of gaining and passing on experiential knowledge. While many such bodies are mobilised primarily for formal training initiatives with little or no experiential know-how, others are developing specific approaches to this subject. This is, in particular, true of the project initiated by Forcemat OPCA in 2008. Having realised that its members⁴ (primarily very small enterprises and small or medium enterprises) would see over 30 per cent of their production workers retire over the next 10 years, OPCA decided to offer its member companies a service to forecast and level out the transition between employees above age 50 and the new entrants and/or employees on internal mobility. Broadly speaking, the processes launched, referred to as TSE or experiential knowledge transmission processes, all give priority to issues in employment (integration, mobility, leaving the labour market) or work (performance, quality, work organisation). In some companies, embarking on an experiential knowledge transmission project was a way of addressing issues

³ Closing session of the conference: “Acquérir et transmettre des compétences dans les organisations”, ANACT - CNAM – GARF, 12 October 2006, Paris. For more information, see <http://www.anact.fr/> in the section Skills, Professionalisation, Skills Transfer

⁴ 5 000 companies in the quarrying and materials, shingles and bricks, concrete and ceramics sectors, totalling nearly 100 000 employees.

that arose from the retirement of an employee in a key position in the company and/or with skills that others did not have, or if so, only to a limited extent. In this case, the prevalent thinking was to identify the parties involved (who is leaving and when?) and support the transfer of experiential knowledge with more or less foresight. Yet, such retirement-related departures sometimes led the company to rethink its entire structure. When this happened, the TSE system was used to train several employees at once. Other companies, which did not have any retirements in the near future, wanted to use the approach to foster multi-skilling or to improve the quality of their production. When that was the case, the prevalent approach consisted of calling upon previously identified experts to help ensure that the minimum skills sets needed to fill a position would be gained through a group effort. Based on a methodology tested on a number of pilot companies by the consulting firm Itaque Conseil⁵, some fifty companies were able to receive the assistance of a consultant in instituting specific action plans. A dozen consultants trained in the TSE approach took part in the project deployment, with the assistance of Forcemat OPCA advisors in charge of informing and approving company commitments. Five phases structuring the methodological approach common to each undertaking were set out: an opportunity and feasibility study, identification of the skills to be transferred, mobilisation of the parties involved (mentor – mentee), transfer in real-life working conditions and the formal institution of best practices. For the sake of simplicity, we will keep to setting out the main principles in the TSE approach. The owners of the approach put forth four major methodological principles:

- *Transferring does not mean cloning*: the aim will thus not be to formally set out in advance, or transcribe skills with an aim toward ownership through a passive document. This principle also reflects the fact that the transfer of skills does not necessarily take place through a single person, with reorganisation upon the departure of the transferring party, taking place as applicable.
- *Transferring means doing it together*: it does not mean having something done or showing how something should be done. In order for the transfer to be able to take place between the mentor and the mentee, the two will need to be placed in a situation requiring that they work together to solve the issues and come up with appropriate responses. This principle highlights the need to provide for joint work sessions during the project.
- *Identifying work situations*, which both put the experiential knowledge to use and appear conducive to learning. This principle requires identifying work situations that will later be mobilised through the TSE. *It is the situation that mediates* just as much as, if not more than, the relationship conducive to transmission that can set in between the transferor and the transferee.

⁵ www.itaque.eu/index.php

- *Analysing the criticality of the know-how in question*, using four criteria (strategic added value, role of experience, risk of loss, and lack of opportunity to gain knowledge through another training avenue). By thus “weighing out” the alternatives, one can if necessary weed out certain areas of know-how from the transfer which are deemed as non-strategic or which could possibly be gained through an external training programme.

From these principles, it emerges that it is not enough only to designate the mentor and the mentee for the transfer to work. Engineering and support for the transfer initiative beforehand and by a third party are required, in particular to help understand how the experienced employee has gradually learned to master the knowledge he or she holds. The ambition of the method is to speed up a learning process which otherwise might take several years to be completed, in particular because it would be governed in part by “chance”. The aim is to save time by making it possible for the learner to move more quickly through the stages that have made it possible for the mentor to gain his/her experiential knowledge.

In charge of assessing this project, we drew upon two types of material to complete our task:

- Specific investigations carried out with 11 field representatives in every possible set-up, whether in terms of the business sector, challenges, target audiences or types of skills to be transferred.
- “In-progress” analysis and monitoring of the project with two capitalisation seminars run alongside Forcemat advisors and the consultants involved. For each TSE project a capitalisation assessment sheet was drawn up to enable cross-cutting analysis (30 assessment sheets analysed).

Above and beyond the factors that characterised the company and its structure, the objective was to understand the following aspects through interviews with the internal and external players involved, document analysis and direct observation of work situations:

- The issues and factors underlying the company’s commitment,
- The methodology deployment conditions and any adjustments required,
- The initiative’s direct and indirect effects, expected or unexpected,
- The conditions or factors conducive to the success of the product,
- The issues or limitations discovered,
- The lessons with a view toward transfer.

Meaningful results

From the standpoint of the consultants who carried out the TSE approaches in the

companies, the results were conclusive, with 71 per cent successful transfers. The effects generally go beyond the mere development of new skills on the part of the learner. Regardless of whether this was an initial objective, there were in many cases broader impacts regarding work organisation. For instance, new practices were ushered into the workplace, procedures were instituted, multi-skilling was developed, disparities in practice identified, and reorganisation was initiated or more radically undertaken.

While certain mentors emphasised that the learners had not necessarily become proficient in all of the experiential knowledge covered by the end of the process, they did gain a minimum core of skills enabling them to successfully manage in the relevant activity. The reviews, certifications or validations in the position, carried out in many cases, provide proof of this. Joint learning outcomes were also reported, in a skills-sharing mindset. The learner can be in a position to contribute something (knowledge, expertise developed elsewhere, etc.) to the mentor as well. Moreover, the project's institution often led to formal and informal discussions within the teams regarding work methods and thereby contributed to a broader professionalisation. Outcomes were also shown at the management level and in work relationships: new management practices were ushered in and cooperative practices developed, including intergenerational cooperation under certain conditions⁶, etc. Lastly, as already mentioned, the process sometimes made it possible to structure and support career development paths (integration, mobility).

All in all, as is reflected in *chart 1* below, the learner, the mentor and the company can potentially all derive benefits from a system of this kind.

Chart 1. Benefits of experiential knowledge transmission for parties involved.

For the company	For the learner	For the mentor(s)
Critical know-how kept alive in the organisation. Multi-skilling increased. Quality improved. Opportunity to reflect on strategy. Tools for HRM Capitalising on experience.	New skills gained. Career paths (integration, internal mobility). Improved cooperation within the work team.	Recognition of expertise by the company and the team. New skills gained (technical and pedagogical). Improved cooperation within the team. Job-keeping opportunities for employees above age 55 (not observed).

However, while the TSE approaches do appear to produce compelling and extensive outcomes, assessment of the said effects are rarely, if ever, incorporated into the system. We can only regret this, considering how helpful it would be

⁶ Mutual trust and recognition, opportunities or exchange on methods, joint learning mindset, etc...

to the companies, as well as to the consultants and OPCAs, to be able to derive lessons from the processes undertaken, with a view toward improving them and making them a lasting part of the company.

TSE, a contribution to improving working conditions

In light of ANACT's (*Agence Nationale d'Amelioration des Conditions de travail*) remit – to contribute to improving working conditions – we looked at the effects of experiential knowledge transmission programmes on the working conditions of those already in the workplace. Above and beyond the performance issues for companies, the development of knowledge transfer processes specifically related to experience provides recognition for the achievements of older workers, who learn through interacting with those newly-arrived, and contributes to integration and improved working conditions for new, inexperienced employee(s). Dealing with complex on-the-job situations, knowing how to protect one's health and that of others (both physically and mentally) are skills gained through experience in the workplace. From this standpoint, the statistics on occupational accidents requiring leave are significant as they occur in higher percentages amongst the less-experienced workers. In 2005, those under 20, accounting for 1.5 per cent of the working population, were involved in 60 per cent of the accidents requiring leave (source: CRAM, a regional health insurance fund). The integration and training programmes on safety issues remain very much focused on instructions and rules, overlooking the experiential know-how that can be passed on by older workers. Some of the environments assessed as part of the Forcemat project have shown this effect on working conditions, without this necessarily having been an objective at the start. For instance, at a company specialising in designing and manufacturing refractory ceramics, a number of special techniques were passed on to young employees so that they could perform certain tasks without any safety risks. Furthermore, this interaction made it possible to bring out ergonomic problems at a workstation and to overcome them.

More generally speaking, this assessment confirms ANACT's conclusions on the connections between “professionalisation” and “improving working conditions”. When there is a policy for skills development and recognition, this helps to improve working conditions. When an employee's skills become obsolete, this leads within a relatively short time span to a deterioration in his/her physical and mental health (burnout, heightened occupational accident risk, greater stress, etc.), and possibly even exclusion from the labour market. In a constantly-changing environment, keeping skills alive and up to date contributes to company performance and quality of life in the workplace.

Based on these initial observations, we have continued to explore the specific question of how to gain and pass on precautionary know-how (responding appro-

priately in the face of an occupational hazard) as part of an FSE (Fonds Social Européen) Racine Project carried out with a Belgian partner, Fondation Travail Université⁷.

Lessons and recommendations

Identifying and learning from critical work situations

More than identifying the skills to be transferred, it is identifying the critical work situations that prove decisive. As we have stated, experiential knowledge is developed in real-life work situations, when the employee is faced with problem situations. Identifying the situations to be mobilised during the learning process in advance is an important step. When made part of group dynamics, this identification process provides the opportunity to jointly establish the issues and aims of the transfer. It fosters consensus-building and the institution of an action plan. In contrast, the analysis of a single viewpoint (that of the management team or the mentor) might be flawed or erroneous (far-removed from actual needs, non-strategic, unrecognised by the learner, etc.). The stance adopted by the consultant, his/her area of expertise, and also the process of analysing complex work situations and holding clarifying interviews with experts, contributes to success at this stage. In addition, keeping control over critical situations is not always the work of a single person (the person imparting the knowledge); it can call upon the collective skills of a team. The experiential knowledge that must be passed on in this situation is then more difficult to identify, requiring analysis of the work situation and group interviews while the process is underway. The management is also invited not to disconnect the TSE approach from a broader approach to how work is organised.

Work situations are mobilised for pedagogical purposes during the implementation phase of the TSE process. Three main ways have been identified for making use of these situations, often harking back to Jean-Marie Barbier's (1992) typology on training through and in work:

- *Operating in work situations*, with work sequences in real-life conditions or "tailored" so that certain activities can be completed more easily and made more instructional. At this event, the work situations are tailored and execution conditions modified to a widely varying extent depending on the requirements, in order to facilitate learning (individual availability, reworked environment, temporary suspension of productivity requirements, provision of additional material or human resources, or still yet, "slicing up" of activities). These adjustments to the work situation mean that the end purpose at that point in time is less production than learning. Lastly, work

⁷ www.ftu.be

offers learning opportunities that cannot be planned (dysfunction, breakdowns, special orders, inspections, etc.), hence the importance of ensuring in advance that one will be able to seize upon these events whenever they happen. Flexible structures, explicit communication procedures and responsiveness on the part of those involved are, in this sense, factors conducive to taking advantage of such pedagogical opportunities.

- *Simulating work situations*, in particular when real-life work situations did not enable knowledge transfer, for instance due to productivity constraints or quality requirements. This is e.g. the case when pedagogical exercises are designed on the basis of work situations or when workstation cross-sections are designed based on simulated customer orders.
- *Analysing real-life work situations* in order to guarantee learning. This happens, for instance, when consultants hold sessions away from the work situation (before – after), with the mentor and learner and/or within a work team, to analyse and reflect on specific problem situations.

Lastly, it is interesting to note that specific knowledge contributions on pre-requisites needed by the learner were made in order to facilitate understanding and access to the critical situations on which the transfer focused.

Based on our analysis of these TSE initiatives, mobilising and combining all of the methods above optimise the chances for a successful transfer.

The delicate matter of player selection and mobilisation

The experiential knowledge transfer approach relies in large part on the commitment, availability and legitimacy of the internal players, mentors and learners involved. It is thus important not to be hasty in choosing the individuals and to ensure, in advance, that a number of conditions are met. All the studied TSE processes dedicated a large amount of time to ensure full player mobilisation at each level involved. In particular, depending on the mentors' profiles and needs, the consultants adjusted the content of their support, putting more or less emphasis on the pedagogical, interpersonal or even technical dimensions, as required by the situation (see chart 2 below). They paid particular attention to: *Regarding the mentor*: to the legitimacy of his/her expertise and the learners' recognition thereof, as well as availability, motivation and pedagogical skill.

Regarding the mentee: proficiency in the pre-requisites (knowledge) where applicable and recognition by the tutor(s), as well as availability, motivation and potential for development (with regard to job responsibilities, position, etc.).

Chart 2. *The different dimensions of the support and their impact.*

<i>Consultant's prevailing attitude</i>	<i>Prevailing rationale for action</i>	<i>Advantage</i>	<i>Focus points</i>
Pedagogical and methodological support	Provide methodology and equip the transfer process with tools	Leaves the transferring parties and/or supervisors the role of technical expertise. Guarantees that the TSE method will be followed.	Do not disconnect the TSE from reflections on work organisation. Requires the presence of internal technical reference parties.
Interpersonal support	Facilitate the relationship between the transferor and transferee. Establish mediation or regulation initiatives.	The players' involvement and transferor/transferee relationship are decisive to the success of a TSE project.	Do not focus solely on this dimension.
Technical support	Provide expertise on the company's activities in order to enable easier identification of experiential learning situations and educational situations. Call upon internal or external technical experts.	Potentially large impact. A TSE approach more in line with thinking on strategy and company organisation.	Do not stand in for internal players. If the technical expertise comes primarily from the consultant, the time dedicated to explaining experiential knowledge may be limited.

Considering the impacts of these decisions, it is important that they be debated and taken onboard by the largest possible population. It is important to note that there can be no experiential knowledge transfer or learning if there is no will. In one of the cases assessed, third-party support alone was not enough to overcome the pre-existing relational difficulties between the mentor and mentee. The lack of rules set out by the management team for the process and the issues inadequately defined from both parties' perspective, explain in part why this transfer initiative failed, despite having been well-received at the outset.

All in all, while instituting a special approach can make experiential knowledge transfer easier, the said approach becomes inoperative if the players directly involved do not fall in step with the cooperation approach. Indeed, it is probably important not to be too hasty in choosing the players and rather leave room for manoeuvre, opportunities to adjust and even revisit certain choices midway through the process. When negative outcomes were observed, they were very often due to lack of commitment and mobilisation on the part of the parties involved in the transfer. Alongside this, support for the policy and commitment on the part of the management team in the process are decisive.

Another interesting lesson lies in the fact that the mentor functions were not entrusted to older workers in a number of the cases studied and, in fact, a majority of the employees were of median age (in their 40s) in the projects we assessed. There are several reasons why being a mentor does not necessarily mean being an older worker. Some of these have to do with the learners, who do not necessarily take kindly to being “mentored” by an older worker who may not be legitimate in their eyes. There are also reasons relating to the older workers themselves and their motivation to pass on knowledge. When an employee is on the brink of departure, the social utility of his/her work is in the balance, as is the ability to leave the company with the feeling of a job well done and a new generation duly prepared to take over. The mentor’s involvement in the process will be more difficult to secure if he/she does not feel recognised by the company.

In addition, with highly experienced workers, comes the risk that their know-how is so integrated due to years of practice, that it is all the more difficult to identify. Experience sometimes enables an individual to spontaneously execute the right manoeuvre or make the appropriate decision, without assessing the complexity of the situation. How is it possible to pass on something that is experienced as obvious? Lastly, echoing the observations set forth by Bernard Masingue (2009), it is important not to neglect the ramifications of the changing work environment, evolving organisational methods and the nature of specific activities, which may make the older workers’ know-how obsolete. While the ceramics, quarrying and materials trades have changed little, the automation of the cement industry has restricted opportunities to ask older workers not familiar with new technologies to become mentors. More generally speaking, such observations caution against automatically turning to people above the age 55 for mentoring responsibilities, as an echo to job keeping policies aimed at older workers. The selection criteria for mentors must not solely be based on age.

Conclusion

By analysing the various playing fields, we have been able to identify a number of conditions for optimising each of the stages in the experiential knowledge transfer process. These lessons can enhance the methodologies chosen, which must not be limited to engineering a mentoring approach but also include a more general mobilisation of the work teams. Besides building appropriate action plans, two focal points deserve to be reiterated in conclusion.

The first refers back to the *mobilisation of internal players*. Regardless of how much care is taken in the process, it relies in large part on individual commitment and thus on the conditions conducive to that mobilisation. Many of these conditions are found in companies' recognition policies and practices. Factors conducive to individual commitment are: the involvement of the management team, prior identification of the issues at stake, individual by individual, identification of experiential know-how as a joint effort, and clarification of each party's expectations and contributions.

The second has to do with *the work situations*, whether real-life, adjusted or simulated, used as a vehicle for experiential knowledge transfer. As these know-how experiences can only be gained through work situations, it appears of decisive importance that they be accurately identified, so that they may be used for pedagogical purposes in action plans. Both the mentor(s) and mentee(s) must be in a situation to analyse and jointly solve the problem situations so that a transfer can take place. Certain work organisation procedures and management practices, for instance, are more conducive than others to the implementation of this type of approach.

Optimising these effects also requires support for the organisational changes caused by these approaches. The work situation analyses carried out during the process can lead to changes in practices and/or organisational adjustments. Also raised through this process is the question of how the experiential knowledge transmission process interlinks with other training systems or procedures, insofar as the approach cannot fulfil all of a company's needs on its own.

References

- Astier P, Olry P (2005): "Analyses du travail et formation (1)". *Education permanente*, no 165, 12, 161 pages.
- Aubret J, Mayen P, Mayeux C (2003): "L'expérience". *Savoirs, Revue internationale de recherches en éducation et formation des adultes*, no 1, pp 15-82.
- Barbier JM (1992): "La recherche de nouvelles formes de formation par et dans les situations de travail". *Education permanente*, no 112, pp 125-146.
- Conjard P, Devin B (2007): "Agir sur la professionnalisation". Édition de l'Anact, octobre, 159 pages.
- Dewey J (1938): "Expérience et éducation". Paris: Armand Colin.
- Fernagu-Oudet S, Develay M (2007): "Organisation du travail et développement des compétences: construire la professionnalisation". Éditions l'harmattan, 321 pages.
- Karolewicz F, Trocmé-Favre H (1998): "L'expérience, un potentiel pour apprendre". Éditions JV&DS, 126 pages.

- Kolb DA (1984): *Experiential learning: experience as a source of learning and development*. Englewood Cliffs: Prentice Hall.
- Le Boterf G (2006): "Professionnaliser, le modèle de la navigation professionnelle". Éditions d'Organisation, 144 pages.
- Masingue B (2009): "Seniors tuteurs comment faire mieux?" Rapport au secrétaire d'état chargé de l'emploi, la documentation Française. Mars, 59 pages.
- Pastré P (2005): "La deuxième vie de la didactique professionnelle". *Education permanente*, no 165, 12.
- Piaget J (1974): *La prise de conscience*. Presses Universitaires de France, 282 pages.
- Sorel M, Wittorski R (2005): "La professionnalisation en actes et en questions". Éditions l'harmattan, 271 pages.
- Rousseau JJ (2001): "Emile ou de l'éducation", traité d'éducation, livre IV, 1762. *Ellipses*.