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► **To cite this version:**

Corinne Gaudart, Johann Petit, Bernard Dugué, François Daniellou, Philippe Davezies, et al.. Impacting working conditions through trade union training.. WORK, 2012, 41 (2), pp.165-175. 10.3233/WOR-2012-1281 . hal-00674119

HAL Id: hal-00674119

<https://hal.science/hal-00674119>

Submitted on 1 Mar 2012

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Impacting working conditions through trade union training

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Received 16 September 2010

Accepted 27 January 2011

Abstract. *Objective:* This article presents a training course in work analysis via an understanding of real work. The course was aimed at trade unionists and was produced by researchers in ergonomics and occupational medicine. Designing this type of training is closely associated with the history of ergonomics in France and goes back to the basic principles: training by and for action, focusing on the concept of activity and the co-construction of knowledge, involving all actors in the relevant area of work. *Participants:* One hundred and fifty trade unionists were trained over a period of 18 months, successfully completing company projects in the field of occupational health.

Methods: The course was organised into seven 3-day modules. Each module included plenary sessions on fundamental topics relating to health/work, and small work groups where the trade union projects were prepared, based on gaining an understanding of the real work involved.

Results: There were two types of results: an understanding of the way work is currently changing and of the consequences of these changes for workers' health; transformations in trade unionists' representations of work, giving them a better awareness of health/work relationships, new ways of transforming work, and also information about the teaching content required when designing training programmes for trade unionists.

Conclusion: Understanding the notion of activity and constructing interaction with employees are crucial elements for carrying out this type of project successfully.

Keywords: Training, work analysis, activity, health

1. Introduction

The project described in this article originated with the determination of a French trade unionist to “*return occupational health to its rightful place in trade union practice*”. A multidisciplinary team of researchers in ergonomics and occupational medicine was asked to produce a work analysis training-action based on the

understanding of real work [1–3]. This request was based on the notion that in its everyday dealings trade union practice is moving further and further away from the reality of work, and this distancing is reinforced by the fact that training opportunities provided by the trade union organisations are based for the most part on teaching the legal context of trade union activity. In fact, trade unionists devote little time to a detailed analysis of work situations in the field and how workers are affected by their actions [4]. The training course offered in this project was based on looking at working

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conditions with reference to their effects, looking at real work or activity, so as to extend the area available for potential transformation actions and for negotiation. Thus from the outset the course involved leaving the trade union setting and going out to meet workers going about their daily business. The aim was to equip trade unionists to carry out an occupational health project, from identifying problems to implementing changes.

The aim of this project was therefore two-fold. The first, in relation to the request by the trade union, was to design a training-action with a methodology that the trade unionists could subsequently apply when dealing with occupational health matters. A framework for the basic methodology was therefore established, although the course content had to be adjusted appropriately, according to the number of teams, the industrial sectors and the topics that were to be covered, as these were not always defined beforehand. In this sense, the project can perhaps be best described as a case study. However, it is also relevant in the current context of research into understanding the role of social actors such as managers, occupational doctors, preventionists (e.g. [5, 6]) in the field of work. With a better understanding of the difficulties involved, progress in occupational health matters will become possible. The objective was therefore the same, in understanding both the work carried out by trade unionists and the difficulties they encountered.

2. Methodology framework

In France, this type of training, generally aimed at staff representatives, is part of a long tradition, closely linked with the history and development of ergonomics [7–9]. Several features emerged which were key to the design of this type of training-action and the methods used.

2.1. An approach where researchers and trade unionists are co-actors in training

The growth of ergonomics as a field discipline in France, i.e. where researchers leave the laboratory in order to gain an understanding of reality, happened at the end of the 1950s at the instigation of trade unionists. They asked for studies to be carried out, being concerned at that time with repetitive work, and in demonstrating scientifically how hard and strenuous a job was

and the possible consequences for workers' health.¹ By going out into the workplace and meeting a social need, these first ergonomics researchers² exchanged their status as experts on work for a comprehensive approach which examines and collates all workplace data, in collaboration with all the actors involved, workers, trade unionists, organisers. Training courses were also set up to analyse the work done by staff representatives and develop an understanding of the work involved [9]. Just like the analyses carried out in the workplace, this type of training was based on comparing two types of knowledge, that of the trade unionists and the workers, which is concrete and operative, and that of the ergonomists, amassed from scientific data and workplace experience.

2.2. Activity as the basis of the ergonomic approach and the training course [10–12]

For those first researchers, coming out of the laboratory to go and see the reality of work and the workplace gave rise to a fundamental concept, that of activity, based on the observation that the work really done by the workers did not correspond exactly to what was laid down, due to the variability of the work and the diversity of workers. Understanding the activity gave the researchers access to what occurred specifically in the work context, how regulations were enforced on a day-to-day basis and inter-individual differences for coping with the organisational and collective requirements of the work [13]. In the trade union practice developed in the course of the training sessions, looking at the problem from the point of view of activity consists in concrete terms of starting with what is causing problems for the workers by trying to understand the work that is really carried out, by looking closely at details, using methodological tools such as interviews and observation that have first been tested during training.

2.3. Providing knowledge and enriching the trade unionists' representations of work [14]

This type of training course is based on the idea that providing knowledge about the concepts and methods of work analysis, and testing them by applying them directly, will then become a cognitive tool to transform representations of work. The aim of this trade union-

¹ In fact, these first studies covered women workers (Teiger, 2006).

² The pioneers: Catherine Teiger, Antoine Laville, Jacques Duraffour, Alain Wisner.

ists' training course was to transform their representations based on "succeeding" and "achieving" into representations enabling them to "know", to "understand" and to "formalise". "The means chosen to facilitate this transition was that of using the ergonomic work analysis in a dual movement: reflexivity and centration (increased understanding through their own activities, determinants and consequences), and objectivisation and decentration (ability to analyse and understand the work of others)" (p. 313–314).

This type of training is thus rooted in action. This was a training course by and for action [15]: by action, as the trade unionists used work analysis during the course; and for action, as ergonomists and trade unionists worked together, throughout the course, on the project to transform work situations by improving working conditions.

Teiger and Laville [10] analysed about a hundred such training courses in which they were involved over a period of 25 years, in all economic sectors, and they observed several problems. The main one is the transition from understanding to action within a short period of time, since sessions were no longer than 6 days divided into 1 or 2 modules. They define 3 stages in the transformation of representations: the trade unionists' first expression is a representation of work based on what they do themselves and is very much modelled on recommendations laid down ("what do we do?"); after guidance from the ergonomists, the representation of work is based on the activity ("how do we do it?"); the last stage is a representation defined in accordance with their aim to transform working conditions in line with their mission as trade unionists. It is the transition to this last stage that is the most difficult, i.e. the transition from individual understanding of the difficulties to a collective action of transformation, particularly when the training session is short and when the trade unionists are isolated within their company and/or their union structure [16].

2.4. A specific training scheme

To overcome these difficulties which had been identified in previous training courses of this type, the scheme focused on two new elements:

- Length of training course – the training took place over a long period of time with regular meetings lasting several days in order to provide training in work analysis, and also to supervise the projects right up to the stage where work situations were transformed;

- The training course as an opportunity to strengthen health and work networks – the trade unionists held a variety of union posts: from company trade union delegates who were still operating in the workplace, to full-time trade union employees in the local branches and regions. We wanted this mixture so that in the course of the training scheme lasting occupational health networks would be created which would become useful resources after the training had finished.

Also, the co-construction approach adopted in the training sessions between researchers and trade unionists resulted in a double objective in this process: training the trade unionists, and together producing knowledge about work, current developments and consequences.

3. Method

3.1. Public

One hundred and fifty trade unionists were trained in 2 training courses (2×75 individuals). Each course lasted 18 months during which time participants met 5 to 7 times for 3-day modules. The trade unionists were drawn from all economic sectors, and from private and public companies. As mentioned above, some were permanent trade union delegates in companies, some were still working as operators, some held regional or federal positions with responsibilities for working conditions. For all these trade unionists, this was an official training course and implied agreement on the part of their employers and trade unions. The two-fold objective described above was approved by the participants.

3.2. Teaching methods

In terms of pedagogy, each seminar was organised as follows:

- plenary meetings covering basic knowledge about work and occupational health. Three areas of knowledge were covered: scientific (concepts and methods), union matters (resources, knowledge of institutions, union politics and operating), covered in more detail by speakers from trade unions, and communication (presenting data, defining an action strategy, evaluating action).

- work on a project, in workshops with about 20 trainees, led by a person with a dual capacity as researcher-union trainer. These workshops generally retained a collective organisation bringing together participants from different sectors and regions. This work consisted of project follow-up, reports and preparing work between modules.

This combination of plenary sessions and workshops was entirely suited to the double goal of providing knowledge and addressing representations of work by making use of different teaching methods. As Teiger and Laville [10] pointed out, representations are subjective constructions, referring to operativity criteria. They cannot be increased like knowledge, but acquisition of knowledge can help to modify them. Representations can be enhanced by discovering the various elements of which they are made up, by comparing them with other representations. The work carried out in the workshops was particularly useful for this work of enhancement.

Understanding the notion of activity is a fundamental stage in the transformation of representations of work. The plenary sessions were used to provide an academic presentation, and then this was complemented by explanatory sessions or guided expression [17] in the workshops, based on the specific operator functions carried out by the trainees. Updating their own activity, based on the maieutic principle, i.e. structuring ideas on the basis of exchanges within the group and with the trainers, prepared trainees to carry out the same exercise with company workers.

In concrete terms, the main stages of the training-action were as follows:

- identifying a trade union project based on an issue relating to occupational health;
- field survey around this issue to help understand the activity;
- writing up the field study data and reporting back to the actors involved in the project;
- implementing the trade union project in order to improve working conditions.

The content of each training module was adjusted in two stages by the pedagogical team, the aim being to adapt the content according to the difficulties encountered: pedagogical meetings were held between modules (to discuss choice of presentation in the plenary sessions, goals to be achieved in the course of the module, to prepare the worksheets to be used by the trade unionists between modules); there were also meetings at the end of each training day to discuss any difficulties

the trade unionists had experienced and progress that had been made.

This type of research can be likened to participant observation, where the researcher is himself a participant in the situation being observed [18]. The training-action provided the opportunity to analyse the difficulties experienced when tackling the field of occupational health, to understand the difficulties involved in applying union action in a very wide range of working environments. In order for the trade unionists' work to be analysed later by the researchers, all the sessions were recorded. Researchers interviewed the trade unionists at their workplace three to six months after the training sessions, and also in telephone interviews to assess whether or not they had managed to pass on the training they had received.

3.3. Corpus data

A report was produced for each project: these were formalised and updated versions of the "work stories", showing the trainees' progress. They consisted for the most part of two types of data:

- the first training session, which was recorded (plenary sessions and workshops) and transcribed;
- the individual grades awarded by the researchers and presenters during workshops and teaching meetings.

Reports and interviews were analysed with a view to answering three types of question:

- what knowledge did the trade unionists amass, in the course of their projects, about the world of work, about how it is changing and about possible consequences for workers' health?
- what were the main difficulties that the trade unionists encountered? Were these due to the methodology? Were they related to their ability to implement the project?
- what were the key elements that enabled them to successfully complete their projects?

4. Results

It is not possible to present all the results in the context of this article. We simply highlight some of the most salient points from two types of result: the nature of the knowledge produced by the trade unionists about the world of work and changes it has undergone; a synthesis of three typical reports describing key stages in the transformation of the representations of work.

4.1. The production of knowledge about work and its effects

During the training course, the trade unionists went to see the workplace at first hand. They were thus able to produce knowledge about links between health and work based on their identification of the nature of work today and its possible consequences. Their descriptions provide a detailed picture of what work intensification can mean today and confirms existing research in many disciplines in the social sciences, management, psychology, ergonomics [19,20]. Through their work of gathering information on work stories, the trade unionists have been able to update other facets of intensification by examining the consequences of these work changes in terms of individual mobilisation, not only in workers' physical and cognitive capacities, but also in their relations at work [21]. So what are the consequences for the workers of cutting back on margins for manoeuvre? Overall, we see the extent to which increases in productivity are achieved today more by pressures on staff than by investment in the production system. If we look more closely, we identify the form that these pressures take. And if we look more closely still, we see their consequences: physical and mental suffering, internal conflicts and conflicts with others, work has no meaning. These stories were gathered from all sectors of activity [1,3]: industry, services, agriculture, private and public companies. Out of many of the situations studied, similar elements emerged:

- an increase in the types of constraints to be considered (quantity, quality, control, accountability. . .);
- little consideration given by the organisation to the relationship between the objectives to be achieved and the resources supplied, with employees having to “get by”. This so-called “autonomy” did not often result in any real room for manoeuvre, with many employees finding themselves constantly overwhelmed;
- more and more situations where individual employees were upset that they were unable to carry out their work properly, and with no possibility of discussing it with their colleagues. Health problems were therefore linked mainly with the fact that employees were not able to do their jobs effectively.
- Moreover, the fact that production management staff welcomed the research process was also an element that was common to several places, suggesting that the supervisory staff were also “caught up” in work intensification, at the pivotal point

where instructions from above conflict with the knowledge of how variable work can be on a day to day basis.

What these trade unionists showed was that not only did the present forms of work represent a compression of time, but they also result in the organisation imposing a definition of the meaning of work for their employees. These forms of work were having harmful effects on health, not only in terms of physical health, but also mental health as a result of ethical disputes.

4.2. Starting from a detailed analysis of real work

This was a food processing company of more than 200 employees, producing packaging for milk. Management was committed to a policy of making general reductions in staff numbers. In the packaging workshop, one work station was removed from each of the six lines. Work was redistributed across the remaining stations with one person responsible for supervising production across two lines, whereas there had been one supervisor per line previously. At first, the union organisations protested against these staff reductions although they observed “*no particular intensification in the workload*” as some tasks had been abolished or handed over to the maintenance department. A few months after this new organisation was put in place, workers complained that they were suffering too much stress, caused by the pace of work and by the many production incidents that had occurred and which disrupted the smooth running of their work. The position adopted by the union (majority vote at the elections and representing about 30% of employees) was to demand that the work station that had been taken out of each line be restored. The management had only just implemented this decision and did not comply with the union's demands and so a latent conflict situation quickly developed. The two union representatives attending the training course reported on this deadlock, these irreconcilable positions, and the difficulties involved in taking action in their company. The need to “*approach things differently*” was then discussed in the group and a work plan was drawn up.

First, the two delegates gathered information about various indicators (production, incidents, breakdowns, absenteeism) and looked at the overall evolution of the production rate (Overall Equipment Effectiveness). From this, a first global diagnosis of the operation of the workshop could be established. Based on this, the delegates went on to observe and interview their work col-

leagues on the packaging lines. They wanted to identify what extra work the employees had to do as a result of the new organisation and the constraints that this generated for their activity. This initiative with their colleagues was not without its difficulties. The two training course members were not totally convinced of the usefulness of going to interview their colleagues and felt a little uneasy about doing this: “*we work with them every day, we know what they do, we do the same work as they do*”; “*we’ve never done this, they’re going to wonder what we’re up to*”. The other members of the company trade union section were fairly sceptical but opted to give the two representatives free rein since “*it was part of the training course*”. The reaction of their workmates, reported after the first sequence of observations, did indeed mirror their original reluctance: “*well you know very well what we do, why do you need us to tell you?*”. They persevered, however, and as they explained the procedure and its aims, the need to know exactly what work was carried out in order to build up a solid case, the two representatives began to discover aspects of the work that they had been unaware of: work done by their colleagues on the night shift, specific problems with some work stations that were not close to their own (the packaging workshop was more than 100 metres long), the situation of new, less experienced colleagues, the reality of work at certain periods of the week or the month, the many minor incidents and hazards that had to be dealt with. . . Gradually, as the interviews continued, a quite different picture of the work activity emerged: not only the extra work that the employees were doing since the reorganisation, but also what they did before, usually informally, and that they could now no longer do as they did not have time: minor preventive maintenance measures, organising intermediary stocks to avoid running out, checking pressures, etc. This discovery of work that could be called “behind the scenes” – that the new system left no time for and that no one was talking about – was a total revelation for the two representatives. Employees expressed their concern at no longer being able to carry out these “small tasks” because, for them, they were a vital contribution to the smooth running of the workshop. It quickly became clear that it was the impossibility of carrying out these activities which accounted for a large majority of the production incidents and, as a result, for the pressure put on the employees to achieve the productivity levels fixed by management. By talking to the employees, the two delegates were then able to draw up a summary report to present at their next meeting with the man-

agement board. Although this was a relatively small matter, it was nevertheless seen as a “*minor revolution*” for two reasons: first, it was the first time that staff representatives had taken the initiative in this way in a meeting, by presenting the results of their study in a very formal way (computer presentation); second, the content of their diagnosis clearly showed that the management decision had been taken on the basis of total ignorance of the nature of the real work and that many of the malfunctions resulted from this decision.

This example clearly shows what the two trade unionists went on to present at the next training module: knowledge of real work, its most minute details and its effects on men and on production, requires unions to develop practices which involve listening to the workers and ensuring that they participate both in producing a diagnosis and in building solutions. The most difficult part was persuading the rest of the union team, which had only followed the process from a distance, to share their newly acquired conviction.

4.3. Meeting the employees

The second example involves a steelworks with 750 employees. They produce mainly “blooms” and “bars” with an annual production of about 300,000 tonnes. The trade union project, which was originally based on the physically hard and demanding nature of the work in general, was modified to cover working conditions for the maintenance workers and consequences for the quality of production and the health of the workers. The aim of the two trade union representatives on the training course was to reach a better understanding of the reasons for the poor quality of life in the workplace, why workers became worn out with fatigue and suffering, occupational illnesses, and also the perception of the “poor” quality of the work carried out. An agreement was signed between company management and the trade union branch for authorisation to carry out the interviews and film the employees. The two trade union representatives then produced the following steps:

- First, they carried out open interviews with four employees;
- This helped them draw up a questionnaire which they distributed to several departments in the steelworks, on the workers’ feelings to their working conditions;
- They used the results from their questionnaire to draw up a framework of semi-directed interviews targeted at the maintenance workers. They held

interviews with seven workers, two of which were filmed for the purpose of assessing the difficulties they themselves were having in organising these interviews;

- Finally, they completed their analyses by producing detailed observations, with photos and films, of three repair operations, all of which were approved by the employees concerned.

The procedure in this case consisted of the union delegates going to the employees, but not to give them information – which is their traditional union role – rather to obtain information. This produced reactions of surprise which these two trade unionists at first found a little unsettling and which caused them to doubt their legitimacy to adopt this role. However, the employees were also keen to show their interest by pointing out that this procedure did seem to them to be more suitable for understanding the problems they were having. The second difficulty the union delegates encountered was that of interviewing their own work colleagues and analysing their actions but they soon realised that they were not aware of all aspects of their colleagues' work activity. Thus they discovered a new side to their work, taking a new view of the tasks involved, and the risks and dangers involved in their jobs. *“Now I have a better understanding of why in the steel industry a large majority of workers reach the end of their working life worn out, unenthusiastic, sometimes ill, and with their standard of living and health considerably reduced”*. The active participation by the workers ensured that management were prepared to recognise repair and maintenance work carried out. In particular, their assessments highlighted the fact that the problem of the workload and a smaller team had a considerable influence on production, on the physical health of these workers, and could have an impact on their mental state too. The conditions in which their work was carried out showed that it carried a high level of responsibility, and also that there were risks involved. Results were presented to all the maintenance employees and the management team which confirmed the findings and set in motion a procedure with management which until then had been impossible as no dialogue existed between the parties.

The experience of this trade union team showed how difficult it was both for them and for the employees to *“make other people talk”* about their work, especially when their jobs are the same. It also showed how useful this kind of process can be and how the construction of a different union approach, based on understanding the work activity on a day-to-day basis, can give further room for manoeuvre for a transformation project.

4.4. Build a project with all the actors concerned

A two-man trade union team worked in a geriatric department, looking at musculoskeletal injuries (MSI) as their first concern. From the outset, they had support from the regional division of their Union, which had suggested that they work on this subject, but elsewhere than in the food production sector, as there were many examples of this sector in their region and as it had already been studied a great deal. They were quickly put in touch with a trade union team in a hospital who showed a keen interest in being involved in this project. Soon after their arrival at this hospital, a meeting was arranged at their request with the hospital board: *“we insisted on the fact that we were not there to apportion blame, rather to look for solutions to improve the situation”*. A project was therefore put in place with the full support of the board. There were two steps to be carried out before determining an area of analysis:

- consultation of documents listing health problems (social reports, sick notes, reported occupational illnesses, workers' complaints);
- meeting employees who had been laid off for a long period due to an MSI, either in their homes or at the union office, in order to hear what they had to say.

These meetings were difficult for them: *“we listened carefully to these employees talking about their physical and mental suffering, as well as their feeling of isolation. Their pain and their expectations for the project unsettled us a little”*. Given the scale of the task ahead of them and in the face of the trainers' insistence that they go and get a general view of the workplace in order to escape this individual suffering they were confronted with, these two trade unionists almost abandoned the project. However, they agreed to carry on as they had signed an agreement.

After these first two stages, the team selected the geriatric department because of the large number of cases of lower back pain. With the local union team, they carried out observations for two days, looking at all the paramedical professions: the employees were *“distant at first, gradually confiding in us as they day went on, becoming curious and interested in our work and participating fully at the end”*. The team took photos, and filmed and in the end it was the staff themselves who took over the camera. They summarised the results as follows: *“In the course of these two days, we observed organisational problems, an impressive amount of lifting and moving of residents, tasks interrupted when pa-*

tients called them, unsuitable equipment, a lack of staff given the patients' high level of dependence and finally, a communication problem with management. The staff told us that they felt pains in the shoulders, the cervical and lumbar regions and that they sometimes felt exhausted. Also, the employees were unhappy that they were not able to devote more time to the old people. Nevertheless, they liked their work, and were attentive to the needs of the residents."

After this analytical part of the study, a wider ranging questionnaire was drawn up and the results from this, which corroborated their previous analyses of the work, gave their enquiries further validity and overall control. In concrete terms, equipment was modified to make it easier to move trolleys around and handle patients; a workstation that had been on hold was filled; a union procedure was put in place to help people returning from long periods of sickness leave and monitor them in their new workstations. In less concrete terms, they were able to give employees the opportunity to express the way they felt about their work and to pass on these feelings to the board.

The last stage was to report on their findings, first to the employees themselves, and then to the representative bodies of the hospital and the board. Their work was distributed beyond the hospital, to the Regional Union and Federation level of the hospital branch. A project to formalise the methodology was in progress just as the training course was coming to an end, so that this procedure could be passed on to other union teams in other hospitals in the region.

The project also encountered some difficulties. One of the keys to success in overcoming these certainly lay in the fact that at every stage the team was able to build a collective approach: with their internal trade union structure, with the local union team, with management and with the employees. By first explaining their procedure to the board, as long as everything ran smoothly, the team was able, among other things, to have full and transparent access to the workplace.

5. Discussion

Training in work analysis based on an understanding of real work is built on the same foundations as research-intervention in ergonomics as developed in France at the end of the 1950s: it is guided by and towards action; it draws on an understanding of real work and it is participative. Historically, "modern ergonomics" [22] was founded on close collaboration

between trade unionists and ergonomists, cooperation between different experts in the area of work – in this case researchers and trade unionists – in order to develop knowledge about work and the transformation of working conditions. This type of cooperation, both in action and training, can now be found in a wide range of economic sectors (clothing industry: [23]; monitoring automated processes: [24]; information provision by phone: [25]; aeronautics: [26], etc.) and in other countries (e.g. Quebec [27] and Belgium [28]).

In terms of methodology, this project has resulted in the design of two new tools:

- A set of skills that the trade unionists can use to fulfil their potential via a system of prior and experiential learning accreditations (APEL) covering the following points:
 - 1) When dealing with a general subject (stress, musculoskeletal problems, etc.) to be able to identify concrete situations where the subject arises, and to construct a relationship with the local trade union teams to reach an in-depth understanding of the realities of the situation in the workplace
 - 2) To be able to carry out an analysis of occupational situations and to report back to the employees concerned
 - 3) To be able to help the local trade union team construct an action with the employees on the basis of the analysis carried out
 - 4) To be able to mobilise the relevant scientific expertise to carry out these analyses and provide the appropriate assistance: knowledge of health impairment and its causes, changes in work, knowledge of different populations. . .
 - 5) To be able to construct a trade union project around an occupational health related topic by:
 - a. producing a diagnosis and an inventory of the region, the branch or the sector of activity, relating to occupational health
 - b. defining one or more priorities, combining the politics of their organisation and the specific features of the sector for which they have responsibilities
 - c. establishing links between the appropriate local trade union teams
 - d. being aware of and mobilising internal and external resources (know how to build up a network)
 - e. planning and implementing an appropriate project

- f. communicating information about their actions and ensuring visibility
 - g. reporting on their actions (with results that can be measured and evaluated in relation to the targeted objectives of change, notably by an activity report)
 - h. helping to bring about a change in direction in their own organisations, based on their observations and results.
- A DVD for trainee ergonomists, covering the format of this training-action, interviews with researchers and trade unionists, and visits to the companies that participated in the project.

Concerning the second objective about analysing the trade unionists' work and understanding their difficulties, results from this project raise some questions. First, several of the large companies examined had in-house ergonomists, yet there was no point of contact between them and the trade unionists. Second, many sectors investigated by the union teams had been totally ignored from the point of view of ergonomic action. The renewed interest shown by the trade union organisations in occupational health matters should encourage the ergonomics community to re-establish these links so that there can be joint action on working conditions.

The training scheme described in this article focused on the fact that this was a long-term course and on the participation of trade unionists from both inside and outside companies so that occupational health support networks could be built up. In the end, the teams of union activists who obtained the most significant results were those who succeeded in forging links, in mobilising the employees collectively by giving them a new understanding of the constraints involved in their work and of the effects on their health, based on the notion of activity. Building a collective procedure with the workers, ensuring the visibility of the work done by each and every one of them and the cost of this work, also proved to be a means of fighting against work intensification, as described by the trade unionists during the training sessions. As we have seen, by compressing work time and imposing a meaning to the work, work intensification splits the workforce so that individual workers feel guilty that they are doing their work badly. By pooling their individual difficulties they unite together once again and question – in the sense of challenging – the organisation of work procedures, control and evaluation methods. This union practice produces knowledge that focuses on action and transformation, the workers are involved in carrying it out and build-

ing a local union strategy based on real individual situations. The length of the training course, combined with a trade union network to support the project, were therefore important factors in its success.

However, not all the teams of activists completed their projects successfully. There were different levels of difficulties. Some were contextual, due to the work changes described: groups breaking down, employees becoming isolated, jobs and tasks being divided up, and these factors affected not only the employees' health and their work, but also the unions' ability to act. The trade unionists, both individually and collectively, could find themselves in a critical situation in the face of these changes which partly cancelled out the experiences already acquired. A number of problems emerged due to intensification. During the 18 months of the training course, there were social plans and relocations that focused immediate attention on jobs, companies were broken into separate entities, cutting off access to the workplace, pressures on employees became so great that they did not even have time to discuss this with their colleagues on the work station. Also, intensification increased gradually, in stages; it was not easy to be aware of changes that were causing problems and to produce a diagnosis in keeping with the cumulated effects of these changes. There were also difficulties that derived from the trade unionists themselves: "*moving outside their trade union comfort zone*" was not so easy to do. Renewing contacts with the workers proved all the more difficult when the positions held by the trade unionists put them outside the company. In our role as trainers, we have often encountered strong resistance to the renewal of ties with employees. Using questionnaires – as in the second case study presented here – was one of the strategies used to avoid direct contact. Some said they were frightened to come and see the workplace, and felt they were taking a leap into the unknown. The problem lay not simply in coming to speak to the employees, but in assuming a position where, basically, the trade unionist "*does not know the answer*". Meeting employees to ask them to speak about their work and to describe the difficulties they were having is not easy to do when the trade unionists' normal practice consists of handing out tracts which explain what is going wrong [29]. This resistance to meeting the workers in order to understand real work caused us to rethink, to some extent, the teaching programme that had been set up. It was based on collaboration between researchers and trade unionists outside the company where the project was based and outside any regional or federal union context. The researcher encouraged

the union activist to act for himself; but he could just as easily work together with him. Lastly, a final category of difficulties was encountered: these originated in the trade union organisation itself. Transforming representations of work by union activists working in isolation is not without its dangers; they may find themselves in an awkward situation, isolated from their colleagues both inside and outside the company.

Finally, some trainees completed their project successfully and others not, but most left with a different vision of work; this was clear from a survey carried out several months after the first training session [30]. The course also resulted in inter-union exchanges and the same training scheme has now been put in place in the automobile sector [31].

6. Conclusion

Training in work analysis based on an understanding of real work is built on the same foundations as research-intervention in ergonomics as developed in France at the end of the 1950s: it is guided by and towards action; it draws on an understanding of real work and it is participative. The training scheme described in this article focused on the fact that this was a long-term course and on the participation of trade unionists from both inside and outside companies so that occupational health support networks could be built up. The teams of union activists who obtained the most significant results were those who succeeded in forging links, in mobilising the employees collectively by giving them a new understanding of the constraints involved in their work and of the effects on their health, based on the notion of activity.

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