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The Know-How and the Know-What: The Compatibility of Tacit and Codified Training Knowledge in Creating a Functioning Training Regime at the Firm and Interfirm Levels

Stephen Murray CILATAM and Universidad Popular Autónoma del Estado de Veracruz (smurrayk@cilatam.com)
Victor M. Castaño Universidad Nacional Autónoma de México (vmcastano@unam.mx)
Cesar Aguado Cortes Universidad Nacional Autónoma de México (caguado@docencia.fca.unam.mx)

Abstract

The article considers the question if there exists compatible tacit and codified knowledge of training, that work together in the creation of a regime of functional training at all levels within the company (intrafirm) and between firms (interfirm). It addresses the difference between teaching and learning. Following this, there are two major focuses that are considered: the characteristics and performance of tacit training knowledge and of coded training knowledge.

Keywords
TVET, Technical and Vocational Education and Training, In-company Training, Training Provision, Training Results, Returns on Training, Training Costs, Training and Wages, Innovations and Training, Training in the Mining industry, Training Needs, Training Outcomes, Training Complementarity and Appropriability, Training and Division of Labour, Training and Employment, Training Cluster, Developing Countries, International Companies, Training Spillovers, Tacit and Codified Training.

1. Introduction

When an input of tacit or codified knowledge happens, it is often impossible to predict with certainty what effect it will have, in terms of

such phenomena as improving the quality of the work undertaken or efficiency level. What is the elusive "fixed quotient" of learning, to use an apt phrase, that arises from a given number of "units" of invention? (Bell, 2007: 6.) If the firm has some of its own "training memory", or is well advised or has investigated precedent projects, then there should be some confidence as to what the effect will be. However, the temptation might be to regard more or less faddishly any capacity building as useful in developing "knowledge assets" (human capital), therefore producing a relatively random result that is not properly derived from relevant information, and that proceeds in a way that is not competently designed and engineered for the fullest personal and firm-level benefit (Strang and Macy, 2001).

Tacit training is normally a matter of "know-how" rather than the "know-what" of codified training knowledge: the first is procedural knowledge, the second involves declarative propositions (this description is derived from related remarks made by Hass and Hansen (2007) and Lundvall (2016)). At the same time, a firm should have answers to the following questions underpinning its capacity-building project: why it is training, what it is training, how it will carry out this task, who is training and for whom, and what the objectives and benefits should be (adapted from Johnson *et al*. (2002), Klagge and Peter (2012)). As such, training should ideally aim to share information, facilitate its interpretation, create and protect routines, and establish viable and practical networks.

2. Methodology

This study was undertaken using the following methods:

A. A revision was carried out of the most pertinent literature on the topic of technical and vocational education and training (TVET) – with a focus on single firms or groups of firms – employed as a means of raising developing countries from a position of deep poverty, lack of skills, under-utilised natural resources, stunted growth within and among companies, and civic disorder.
B. A series of visits were made to institutes and companies participating in TVET, in order to identify their best practices through one-to-one interviews, questionnaires, observation of activities and achievements, and collection and interpretation of

results. An attempt was also made to interpret enterprise-based TVET using theories and explanations applied successfully in other fields, as a means to achieve an original understanding using transferable and reliable methods of how TVET works, and why and where it is appropriate.

C. To analyse this research field, raw data was collected for all the published documents on TVET using bibliographic sources such as Scopus. The bibliometric tool was used in order to provide statistical analysis of the quantitative data provided by the scientific literature.

D. Methodological rigor was attained by placing special attention on overall study design, outcomes evaluation, regional comparisons, analysis of the effects of individual intervention components, measurement of change of attitudes and prestige of TVET. Great emphasis was placed on evaluation of such pivotal but overlooked preoccupations as tacit and codified training, social and institutional cooperation, training spillovers, and others.

3. Results and Discussion

Teaching vs. Learning

An optimum balance needs to be reached between learning style (relating to the intelligence, instruction capacity and behaviour of the trainee, among other factors) and teaching style. A learner arrives with a certain level of education/skills and a certain capacity to be trained. Given the level of literacy among low-skilled trainees, for instance, the most useful training methods could involve audiovisual and visual tools and direct demonstration. Likewise, there might be advantages in enabling learners to reflect on how they learn ("learning to learn") so that they enter more fully into the training experience. There is new thinking of course about how training could be learner-centred but in reality many situations do not furnish the persuaded individuals or the capacity to accommodate this properly. The basic structure of the learning process can be explained in the following way:

►Training by instructors
►Training of learners
►Use of learning materials, tools/equipment, facilities

- ►Training organisational inputs: administration, finance, promotion, content design, assessment procedures, certification, internal and external collaborations, etc.
- ►Inputs from company (local and network), parents/families, authorities, etc.

One of the first issues concerning the style of training that is offered has to do with the skills knowledge of the trainer and his instructional ability, and the completeness of the skills (basic or otherwise) formation system that is in place to support this. The latter addresses the existence and applicability of the enabling tools that support training: equipment, guidance on instructional methods, curriculum, programme plan, assessment practices, and so on.

Now, some brief words about the trainer. The unskilled and semi-skilled young will often avail of the informal apprenticeship offer that involves learning in an observational and gradually participatory way with a mastercraftsman (MC). More formal pre-employment or apprenticeship training may also be an option. If the skills level and participation of the MC or trainer is high, or if his abilities can be upgraded and his enthusiasm and discipline fortified, so much the better. An MC may have the trade skills but his weakness could be in his management of training activities and of what is learned in each session (in a way that approximates to a modular structure). His ability to communicate both knowledge and its application may also be wanting.

At the same time, those with a low skills base will not learn so well when the starting level is too high (complicated language, techniques or materials, a *de haut en bas* attitude from the trainer, etc.) or the session top-heavy with too much information presented in a confused way. One danger that exists in this situation is the possibility of trainee humiliation; another involves the declining returns the higher the ratio of trainee to trainer (naturally a big temptation should income correspond to the number of paying learners).

Generally, training will start out by presenting the main concepts first; then as this knowledge builds, practice will follow that concerns the skills that were explained in theory and that makes the trainee competent in skills application. Instruction may be a one-session training event or a much longer series of classroom-based teaching with workshop visits.

The instructor may just be a source of expertise, reaming off words of advice and giving some direct technical instruction on a piece of equipment; or he may integrate this role into those of mentor and coach of self-learning adults, moral guide and then career advisor to "graduates", among other activities.

If he is to give an effective class and fire up the interest of his learners, it would be interesting for the trainer to see which training methods are regarded as most enjoyed by trainees (in the field of mining, for example, the four preferred methods are "Hands-on practice in classroom", "Practice at Worksite", "Simulation or drill" and "Watching videos" (Peters (2002: 11), Figueiroa *et al*. (2012)). However, even an overworked MC can then measure his success as being the difference in competence between those who are untrained and those who have finished their training: the knowledge and skills gained, the quality of worksite implementation, and the impact on the enterprise.

Here there is also an important question of the language of instruction. The low-skilled above all will require either communication in their own language or help in better understanding another one, if this is really necessary. A local MC, conversant in the local language, would not create difficulties in this regard. A trainer may give instruction in the native language of the locals but published material (e.g., manuals, brochures and the like) may be in French or English – even the Web is not so multi-lingual. Some larger enterprises include language instruction within their pre-apprenticeship commitments (e.g., the Nemangkawi Mining Institute in Indonesia).

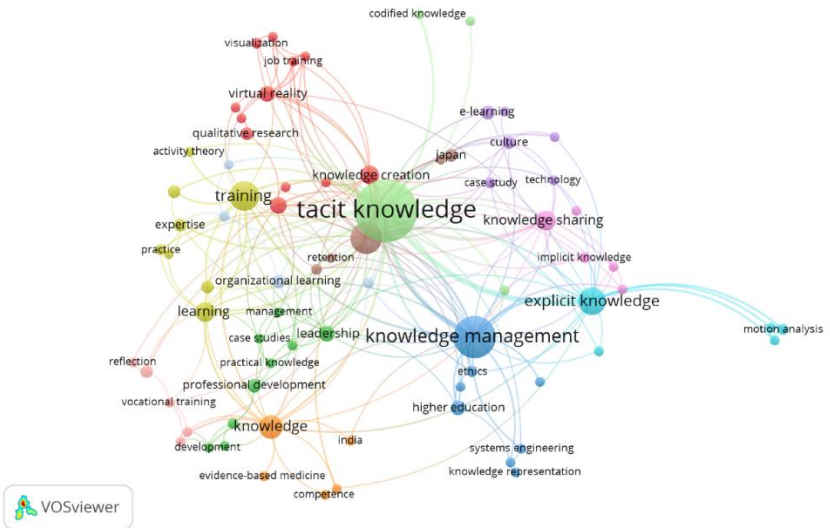
It might be worthwhile giving the trainer some orientation concerning published or other materials not in either his or his trainees' first language. Otherwise, quite possibly the government could be notified of the necessity of translations of key material, or the work could be done by a sectoral group (chamber of commerce or union). A company with sufficient resources could also do this but this is likely to be beyond the capacity of all but the most dynamic of the wealthy firms.

What are the characteristics of tacit training knowledge?

Tacit training is based on knowledge that you do not get from teaching, books, etc., but from personal experience, for example, when working in a particular organization. Then through observation, feedback from a teacher, repetition, practice, and (in many cases) relatively informal coaching in a well-planned or even improvised "programme", one learns the skills and knowledge to work competently. There is a lot of discussion in the literature about tacit knowledge, but not so much about tacit training, although the subject comes out under other categories (e.g., on-the-job training). 597 documents were found in our bibliometric search.

In this literature, there is a number of thematic clusters: a connection was found between knowledge sharing, implicit knowledge, case study, culture, and e-learning. Knowledge management is an important topic within the general theme. Leadership, practical knowledge, and professional development were also linked topics. The interesting thing is that certain other issues, which are important in this current research, are not so well represented in the publications: professional training, competence, reflection, experience, practice, job training and codified knowledge.

Fig. 1. Tacit knowledge and training: results from 597 documents



A good starting question concerning tacit knowledge involves the informal means of transmission through which it is sent and how to facilitate this and make it more effective. In addition, the danger here is that by doing this one may be belittling its effectiveness and richness. The subject of interpersonal understanding and respect may also be significant: if the person who embodies this knowledge is a semi-literate mastercraftsman and the organisation he is contracted to work for as a trainer is a large firm staffed by training managers who do not comprehend the information and techniques that their new instructor possesses, then the full benefit of his experience and technical knowledge might not be fully used (Corbel *et al*., 2014). Cowan *et al*. (1999) stop short of elaborating on the possible limitations of codification of knowledge in the training scenario. However, it would be no surprise to discover that the tacit knowledge, as embodied in a mastercraftsman for example, has been routinised and codified in such a way that information is missing or incorrectly configured, and a less than ideal or even incompatible type of training methodology has been included, not to mention that a large measure of the success of applying tacit knowledge results from the non-codifiable criteria and instincts of the instructor-craftsman himself.

There exists the notion that there always remains a part of training knowledge that is left tacit (in this study, unless qualified by the context, knowledge is taken to embrace both tacit and codified varieties), that perhaps cannot (or should not) be codified, supporting as it does the actual competency of the skills development act (Malerba and Orsenigo (2000: 294), Lahiri and Narayanan (2013: 1042-1046)). Again, it should be kept in mind that competency in this study is understood to mean that part of knowledge that links diverse parts of tacit and codified knowledge together. This is not to deny the eminently communicable, consensual, authoritative, uniform and adaptable advantages of codification, as well as its cost benefits and social advantages. There is another point to be made about training knowledge: when it is simple, it could be expected to diffuse relatively easily, whereas if it is complex (either in itself or because of the way it has been codified), it might disperse less generally, instead diffusing along certain routes such as social or professional networks (Sorenson *et al*. (2004), Fai *et al*. (2018)).

Of course, tacit knowledge persists in many places and sectors. There are a number of obvious reasons for this: (i) it is too expensive to codify, (ii) its codification would have limited benefits, (iii) there exists too much tacit knowledge to codify, particularly in the context of limited capability to undertake such a task, (iv) there is incomplete, premature or inappropriate codified training knowledge that makes the tacit version preferable, and (v) it might be useful in terms of flexibility of course design and delivery. Without simplifying real-life situations excessively, it is often the case that a relatively high level of tacit skills knowledge is useful and appropriate at the more basic levels, and codification assumes greater importance as the tasks and information addressed become more complicated and organisationally more important.

It is arguably often the case that the prevalence of tacit knowledge decreases the further one goes up the skills ladder. Similarly, the more complicated the skills being addressed, or the more it has to do with modern technology and techniques, the more important the role of codified knowledge. The prevalence of one over the other will also affect such matters as the trainer selected, the equipment to be used, the choice of appropriate methodologies of instruction, the type and implementation of assessment (whether demonstrative/practical or written/theoretical, etc.), and the options as to work placement and training continuity.

Tacit knowledge can be understood by and transmitted among members of a particular epistemic community. As such, if the language, customs, techniques, tools, etc. are not easily understood, it could be exclusionary (Breschi and Lissoni (2001: 989), Acs and Sanders (2012)). And though physical proximity is not necessarily a requirement or facet of epistemic understanding, its existence could be very helpful in transmitting tacit knowledge and reducing exclusion: e.g., demonstrations of technique, continuous interaction to remedy errors, etc..

In the sense that a trainee has been instructed through techniques and verbal information that are tacit, and that these now exist in him and not stored in codified form in the firm, means that his departure could be a double loss: that of a skilled employee and also a transmitter of skills knowledge (to colleagues, apprentices, etc.). However, his arrival at another firm could produce some benefit – a positive externality – for the

latter, for the same reasons. One wonders whether the benefit for the second enterprise is equal to the loss suffered by the first, as the knowledge and skills embodied by the new recruit could be relatively specific to the first firm. However, the deficiency and remedies required might be small matters if the two firms have similar focuses, or even if the knowledge and skills act as a good base for upskilling in the new firm or as an extension of its skills pool. The localised mobility of personnel can produce advantageous spillovers; where it is a definite loss is when it involves the departure of the worker from the locality itself, a geographical "brain drain".

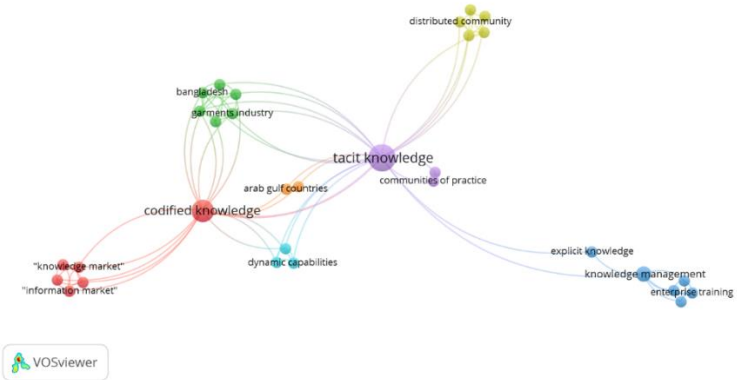
It might be the case that there occurs a progression from tacit knowledge to a mixed tacit/codified creation: this process embraces a modelling phase that converts (in this case) demonstrated tasks into ideas, which in turn are converted through a messaging phase into understandable language. In this way, the formalisation of skills development can evolve from basic to advanced training codification, with the basic variety often endowed with a strong tacit element and the advanced variety often with a strongly codified character. This subject has been addressed by some authors (e.g., by Klagge and Peter, 2012) but it merits greater appraisal.

What are the characteristics of codified training knowledge?

While it is true that not all knowledge that individuals possess is captured and encoded, or used in a training environment, encoded knowledge and training are obviously very useful. Codified knowledge that is tested and practical can be stored and reused by others; geographically distant operations can take advantage of it in a timely and profitable manner. It involves information that is objective and external to the specific user, which is focused on the development and application of skills. There are other advantages: for example, codified knowledge can be combined, classified or synthesized to become explicit new knowledge. One weakness could be that while it provides beginners with the basics, it does not provide them with enough skills to apply the knowledge in action. Even real coded knowledge repositories can be created if the benefits are recognised and the training project is well organised, and of course this project can include a wide range of other tools and even e-learning applications and processes.

Codified knowledge and training are inevitably related to the tacit variety in many research publications. We feel that, like the conundrum of unspoken training, codified training deserves much more study. In the literature, explicit knowledge, knowledge management and business training have been considered together with the knowledge/information market and dynamic capacities, and to a lesser extent with communities of practice.

Fig. 2. Coded knowledge and training: 77 document results



In terms of training codification, this will take place according to a clear recognition of the benefits involved, the possible costs, and the capacity to achieve it in a way that can be applied afterwards in an efficient and beneficial way. Training codification involves the creation of messages, models and infrastructure. Codification of course is greatly related to the people involved (e.g., general educational or experiential level of participants), and the knowledge and abilities of the programme designer, instructors and assessors, as well as facilities, equipment and organisational structure in place. The training system itself, and the information structure that exists within the firm or its network, will affect what the extent of codification will be and how it will be stored, applied, expanded and updated. Furthering this point, it could be contended that it has creative repercussions: the codification of training, insomuch as it involves the capturing of expertise in a replicable form, is as a consequence a "creator of expertise".

The accumulation of training elements (especially the expansion of a codified pool of training knowledge and tools) should hopefully benefit the firm and have repercussions outside it. As such it is part of the cumulative expansion of the codified knowledge-base that affects economic growth (as expounded by authors such as Abramowitz and David (1996) and Wheelahan (2012)). In practice what weakens the efficacy of codification is the inadequate conceptualisation of information and the fact that, faced with the same information, two different agents will understand and use what they have learnt in different ways, depending on their capability to fully comprehend the information and their talent and commitment to using it. Though this has been somewhat addressed by Lahiri and Narayanan (2013), this topic is worth investigating further. It should be kept in mind that, though elements of the training system may be codified, access to the knowledge itself may be restricted, incomplete or misinterpreted. The fact that a proportion of the training process is codified does not automatically mean that it has useful value, or indeed that it has been competently codified in the first place, is appropriate to apparently similar contexts, or is based on successful best practices (Zuckerman, 2012). On the other hand, if it is relatively well-codified and communicated properly and undiminished to the public, it can be of great benefit (and even a sizeable public good).

The following are some of the advantages of the codification of training:

(i) Uniformity of quality
(ii) Assessability
(iii) Accessibility
(iv) Communicability
(v) Clarity of content, activities and objectives
(vi) Storeability (and therefore also non-loseability)
(vii) Non-dependendability on specific trainers
(viii) Possible mutual compatibility and enhanceability with tacit training knowledge
(ix) “Macro” social benefits
(x) Identifiability of alternatives
(xi) Very importantly, cost reduction (on this point see Sheikheldin, 2018)

The codification of training may mean high costs at the beginning (as well as teething problems involving participants, administrative structure, firm-wide collaboration, etc.), but it should permit training operations to be carried out at low marginal costs, as well as fulfilling objectives of easy availability, understandability and appropriateness of method, content, assessment procedures and related tasks. The very fact that, once developed and implemented, it is reusable, adaptable and improvable, makes it a sound investment. However, marginal benefits and marginal costs of offering training and indeed of codifying it, assume that a desire and a capability exist to carry this out. It might just as well be over- or underemphasised, or even not emphasised at all.

On the issue of investment in codification of training, the firm that chooses to undertake the model-building, language-construction and message-writing (Cowan and Foray (1997: 620), Hage *et al*. (2013)) that are necessary to bring this about, as such pay for the fixed costs. By doing this, they take on the initial generic costs of developing all or part of the training system, which in turn means that other firms and institutes can take advantage of the accessible training knowledge environment – comprising elements that can be transferred, copied or purchased – and must only meet variable charges. In summary, codification of training may mean high costs at the beginning for the codifying agent but later it should permit training operations to be carried out at low marginal costs; once developed and implemented, it is reusable, adaptable and improvable. Many would say that government-backed bodies should take on this responsibility of creating and stabilising a knowledge environment but how well it has done this in the past is open to question.

There is no doubt a cost-reduction advantage to emulating the developed and tested skills development system of a firm or institute engaging in training activities. Furthermore, it has been persuasively argued that reasonable well-managed firms tend to mimic those enterprises they regard as successful (Strang and Macy (2001), Zuckerman (2012)), and the same would arguably be the case in the training field. However, there are a number of issues involved. An obvious one concerns the communication challenge, which relates to a number of related questions: how much is made known to the outside world concerning the workings and content of the system, as well as its strengths and pitfalls; in addition, how hard is the emulating firm looking

(it might just be plumping for the most accessible option) and is it clear about its criteria for selection? The second issue is a capability challenge: how well can the second firm emulate in terms of its internal capability limits? Here we are discussing an external, as opposed to an internal, search for training options based perhaps more on starry training successes (Gaba and Terlaak, 2013), rather than sufficiently on specific internal problems and capabilities (the general tendency is discussed in Levinthal, 2011) and the failures that go unreported in the knowledge that is made public (Haunschild and Sullivan, 2002).

There are of course many sources of emulation based on real-life issues such as similarity of business activity, geographical proximity, legislative and corporate obligation, and herd behaviour (this last is well discussed by Swedlow (2011) and Ali and Kartik (2012)). Skills development innovators and leaders might be found among competitors, industry leaders, corporate contacts, dominant local firms; from inside and outside the sector; among public and private providers, trade associations, and professional, vocational and qualifications institutes. The list could go on.

The perspective of a firm could be focused outwards if the firm has little experience or capability in capacity building or if it has been a failure in its attempts to develop this capability. Needless to say, internal failures are highly influential whereas information about external ones is easier to hide or minimise (Strang and Still, 2004: 319). On the contrary, its focus might be more internal if its own training system and the people involved with it display enough competence and assurance, and if its training experiments (small-scale and immature though they still may be) have been successful. In addition, there are a whole host of criteria concerning why and to what degree certain skills development capabilities are chosen: trainee profile (e.g., technician or administrative, basic or advanced level), product or process focus, benchmarking accuracy, strategic importance, funding restrictions, internal or external provision capabilities, complex or simple, relatively certain or uncertain (extending the characteristics discussed in Strang, 2010).

Training codification means that people do not have to be released from what might be essential and highly profitable productive responsibilities to work as trainers within the firm itself, in other

companies or in training providers. This is because the content, training methodology and assessment guidelines can be transferred by written, electronic, audio-visual or similar means, not merely embodied in a particular person or group. It also means that training knowledge in codified form can be seen as a commodity (and therefore somewhat controllable and perhaps saleable), free of its embeddedness in people but at the same time capable of being embedded in those who wish to be either trainers or trainees, in a situation of organisational structure and facilities that allow them to implement the skills development activity. It should be kept in mind, however, that some training codification is not so easily transferred, especially if it is complicated and not easily understood by instructors or trainees, requires specialised knowledge among trainers, or involves expensive or difficult-to-access equipment, tools or installations.

The selection of the right trainer is highly important, sometimes for his role as a bridge between informal and formal capacity building. For example, if the trainer embodies much of the tacit knowledge essential to fill the gaps in codified knowledge, implement it in practice, and adapt it to local or sectoral conditions, then his skills knowledge and pedagogical capability are a pivotal factor (Grollman and Rauner, 2007). At the same time, a competent trainer can be a knowledge translator, in the sense that relatively complicated codified or even tacit information or methodologies can be explained by him in a simplified, near-tacit way for the illiterate and unskilled.

Training codification can be socially beneficial if the number of participating agents is large; if there exists the possibility of recombination, re-usage or cumulativeness (Zhu and He (2014) and Wheelahan and Moodie (2016) talk about this theme in terms of innovation models); if a loss of expertise is avoided by codification; if it delineates ways of achieving such goals as efficiency, innovation and high standards; and if they permit structural or process changes that may affect not just a single firm but a whole local cluster.

New innovations in operational processes and technology – whether they are tacit or codified prior, during or subsequent to evaluation and implementation – may make the training related to the old processes and technologies inefficient and even obsolete. The ability of a firm to

adopt/imitate innovations is thus also dependent on its ability to adapt its training system. There could be a relatively elevated cost if this involves external sources (which indeed may be the sole choice) and hence it is important for a firm to know what its options are, how much investment is required ("pecuniary knowledge externalities" as Antonelli terms it (2008)), and how it can be appropriately implemented in a timely manner.

If innovation has been called a key element in the survival of firms (Buddelmeyer *et al*., 2010), how important is skills development as well in terms of the central role it plays in the process and application of innovation? Cefis and Marsili (2005: 1168) argue that firms that have introduced process innovations show a "25% increase in survival time" when compared with others which were not innovative, a view echoed by Figueiredo and Silverman (2012). It could be argued that it is an indivisible part of business longevity and progress, for, without it, new technologies and processes cannot be introduced or are not used to their full potential, optimum working levels are not reached, competitive pressures from other more skills-capable firms are overwhelming, and the betterment of processes and products is not supported by a corresponding level of talent.

If training codification is too localised (i.e., too in-company), then the objective of such goods as best-practice transfer might be stalled or slowed down by compatibility costs and effort associated with recodification. Two mutually incompatible codifications, involving the same subject or activity, is a waste of resources and an obstacle to mutually beneficial cooperation, especially at the local or sectoral levels. In this case (as in others), this is where the guiding hand of a supra-organisation, involving perhaps a qualifications framework and mechanisms to create equivalences, could be useful.

There are other negative issues associated with codification. For example, an excess of training codification (as with a rigidity of rules and performance criteria) might militate against such benefits as flexibility to the changing environment (which embraces trainee profile, product, processes, market, budget, etc.), openness to tacit input, proactiveness and innovation. Likewise, the period during which training operations are being established is relatively costly, while benefits arise

usually when operational stability has been achieved (and capacity building can play a central part in this stability), with the result that the latter situation may encourage inertia. The skills themselves might not be so capable of codification, in which case alternatives are to maintain the best skills development based on tacit knowledge and its associated techniques, or bring in skilled people or purchase another firm with the required skilled employees.

The codification of training is usually part of the system that has formalised and standardised such matters as job description, contracts, performance evaluations and expectations, application procedures and specifically candidate selection, HR information systems, and affirmative action plans, among other factors. If this is the case, it is one element in a complex and mutually responsive structure that is profoundly integrated into the organisational workings and evolution of the firm. Though ideally the training system has to be kept somewhat apart from what it is assessing and improving, it is the practice in many firms to evolve their capacity-building organisation concurrently in an interdependent dynamic, for this and other reasons.

Up to now, we have focused our attention mostly on organised training inputs. But there may be a great deal of skills progress accrued through incremental developments in working techniques and technologies in an everyday, on-the-job scenario. This is training of a type but not necessarily formally assessed or scheduled, not part of a consciously planned path, often not codified. The worker may for instance have a good skills competence level achieved through previous training and work experience, be in a position of relative working autonomy and capable of self-directed functions as circumstances permit (Rauner *et al*., 2013). Through the actual work he performs and equipment he uses, he may learn things that go beyond what he has experienced or been trained for before. This is learning by doing.

4. Conclusion

In summary, the value of training by tacit means or through codification can be measured through the diffusion and appropriateness of knowledge and skills, the number and quality of "successful" trainees (however this is calibrated), and the repercussions for good or ill that

accrue subsequently. Simplifying this a little for reasons of clarity and brevity, this depends on the skills ability and learning capacity of the trainee initially and then, consequently, on his/her ability to employ the enhanced or new skills productively and to pass on this knowledge or expertise to others in a skills-domino effect, either as an exemplar colleague or perhaps as a fully-fledged mentor or trainer.

Again, depending on how well they have internalised the training, and how well they communicate what they have learned (either "consciously" as more or less clear performance instruction to others, or "unconsciously" as demonstration of work done), then there will be greater or lesser knock-on benefits. The important point perhaps in this context is that at least there should be some positive results diffused out within the firm and beyond.

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About the authors

Stephen Murray (smurrayk@cilatam.com) is general director of the CILATAM Institute in Mexico City and a director of the Institute of

Existential Analysis of Mexico. For the World Bank he authored the plan to create the African University of Science and Technology (AUST) and was head of a global consultancy to develop operational tools to train employees in developing countries, among many other activities.

Victor Manuel Castaño (vmcastano@unam.mx) is a lecturer at the Universidad Nacional Autonoma de Mexico (UNAM – Faculties of Chemistry, Sciences, Engineering, Accounting and Administration, and Dentistry) and visiting professor at a large number of other universities, and was the founding Director of the Center for Applied Physics and Advanced Technology of the UNAM in Juriquilla, Querétaro. He is associate editor of several prestigious international journals and treasurer of the International Council for Materials Education.

Cesar Aguado Cortes (caguado@docencia.fca.unam.mx) is a lecturer in business administration at the Universidad Nacional Autonoma de Mexico (UNAM) and visiting professor in several other institutes.