Learning to Learn, Teach and Develop
Co-emergent Perspectives on Translator and Language-mediator Education

By Gary Massey (Zurich University of Applied Sciences, Switzerland)

Abstract & Keywords

English:

Authentic experiential learning has enjoyed widespread and growing advocacy in translator and language-mediator education. It is epistemologically rooted in experiential learning theory (Kolb 1984) and predicated on the assumption that only through deliberate and reflective practice can the adaptive expertise necessary to professional translation and language mediation evolve. As such, it is compatible with social-constructivist and later (co-) emergentist models of competence development (e.g. Kiraly 2013, 2016). This paper considers applications and potential implications of (co-)emergent perspectives on teaching and learning for student, staff and organizational development. Drawing on a widely referenced toolkit for developing organizational learning (Garvin, Edmondson and Gino 2008), it uses examples of key implementations at the author's home institute to sketch out a frame for empowering institutions to educate not only translators and other language mediators, but also teachers, researchers and the organizations in and with which they work.

Keywords: co-emergence, competence development, translator training, translator education, action research, organizational learning

1. Introduction

The employability or skills gap among graduates of translator-education institutions in terms of quality, productivity and technology skills has been a repeated feature of meetings between translator educators and representatives of the language industry, such as the Translating Europe Forums convened by the European Commission's Directorate-General for Translation. Proposals for follow-up actions (European Commission Directorate-General for Translation 2014: 5; see also Astley and Torres Hostench 2017: 219) have included more and better teaching of real-life skills to meet market needs, improving the range and quality of work placements and deploying professionals from the language industries not only to train students but also to help develop the competences of those university teachers with a predominantly academic background. The fundamental 'dichotomy' (Orlando 2016: 48), between vocational training on the one hand and academic objectives on the other has also been recognized by Translation Studies scholars, perhaps most characteristically voiced by Drugan (2013: 37) in the context of translation quality management: 'academics and the industry are pursuing different goals and asking different questions […]. This lies at the heart of the widely noted divide between theory and practice […]'.

The response has been a widespread and growing tendency to orient translation and language-mediation teaching, and the research that drives it, more closely on competence and its development. Multi-componential translation-competence modelling has been a strong current in Translation Studies research over the past twenty years. Risku (1998) serves as an early example, contrasting the qualitative distinctions in the processes of non-expert and expert translators in four 'Anforderungsgruppen', or clusters of cognitive demands (Risku 1998: 244): macro-strategy development, information organization, planning and decision-making and self-organization. Her work was followed by a number of models comprising multiple sub-competences that combine to form a translation super-competence. Arguably the most influential of these has been the PACTE group's revised multi-componential model (PACTE 2003: 58–61). It presents translation competence as a set of interacting sub-competences. The first four are the bilingual sub-competence, 'predominantly procedural knowledge needed to communicate in two languages'; the extra-linguistic sub-competence, 'predominantly declarative knowledge, both implicit and explicit, about the world in general and special areas'; the knowledge about translation sub-competence, 'predominantly declarative knowledge, both implicit and explicit, about what translation is in general and aspects of the profession'; and the instrumental sub-competence, comprising technological and information literacy skills. These are integrated to 'guarantee the efficiency of the translation process and solve the problems encountered' by the key strategic sub-competence, made up of procedural knowledge encompassing planning, evaluation, sub-competence-activation, problem-identification and problem-solving elements. The five sub-competences are supported by 'psychophysiological components', such as cognitive and attitudinal resources as well as psychomotor mechanisms.

The PACTE group's aim has been to empirically validate their comprehensive model of translation competence and its acquisition (Hurtado Albir 2007; PACTE 2005). Göpferich (2008: 155–7; 2009) pursued a similar goal in the longitudinal *TransComp* project, adapting and embellishing the revised PACTE model to create a multi-componential model of her own. By contrast, the influential model developed by Kelly (2005; 2007) is not backed by empirical research. Instead, she proposes a heuristic derived from the analysis of other models and personal experience. It diverges little from the previous models that it combines and partly restructures, and comprises communicative and textual, professional instrumental, (inter-) cultural, thematic, interpersonal and psycho-physiological competences, all interlinked and governed by strategic competence.

Multi-componential modelling has exerted considerable influence on the translation profession, with key elements incorporated into translation service quality standards like the European EN 15038 (2006) and, later, ISO 17100 (2015). It has also had a considerable impact on approaches to designing translator education. PACTE's

competence model, for instance, is accompanied by an (admittedly vague) one of translation competence acquisition (PACTE 2000: 104), realized by a process in which the sub-competences are developed and integrated through the adoption of adequate learning strategies to accumulate new, and restructure old, knowledge. Kelly's model is overtly didactic, directed at preparing students for a rapidly changing world and equipping them with the cognitive, professional and social skills needed to embark on a successful career. Indeed, key elements of Kelly's model appear to have fed into the first EMT 'wheel of competence', the European Master's in Translation competence profile for professional translators (EMT Expert Group 2009). The EMT wheel has been something of a blueprint for curriculum design among leading translator-education institutions both inside and outside of Europe. Its most recent edition (EMT Board 2017) continues the multi-componential approach, with no fewer than 35 skill descriptors arranged in the four principal competence clusters translation, technology, personal and interpersonal competence and service provision. A fifth area of competence, language and culture, is delegated to the performance levels and descriptors set out in the Common European Framework of Reference for Languages (CEFR) and comparable reference systems.

Yet, the multi-componential models also have their detractors. One of the earliest was Pym (2003), who regards the expanding panoply of competences in multicomponent models as institutionally driven and conceptually flawed, in that the models will always lag behind market demands. Instead, he puts forward a 'wilfully' minimalist definition of translation competence comprising 'the ability to generate a series of more than one viable target text (TT1, TT2 ... TTn) for a pertinent source text (ST); the ability to select only one viable TI from this series, quickly and with justified confidence' (Pym 2003: 489).

From a didactic perspective, the EMT competence profile implies that aspects of multi-componential modelling might be mapped more or less directly to curriculum design – an impression reinforced by the EMT network's own criteria and procedures for accrediting member programmes. However, attempts to do so should be handled with extreme caution in order to assure curricular coherence and integrity. Kelly (2007: 138) herself expressed early misgivings about the ability of students to relate the various components of a curriculum to one another in what she calls 'a sadly impermeable set of separate compartments of knowledge'. She has published similar views in a recent article suggesting the fragmented, teacher-centred impact of the modularized Bologna system underlying the European Higher Education Area (EHEA) (Kelly 2017: 34). Likewise, Kiraly and Hofmann (2016: 71) have criticized the compartmentalization in multi-componential models and their effect on current 'patchwork quilt' curriculum design.

A look at the common features of current translator-education curricula lends substance to these criticisms. My own institution is by no means untypical of EMT members in offering a series of semester-based modules that focus on particular aspects of translation competence broadly aligned with the EMT profile. Thus, the core translation modules offered in various source and target languages are chronologically structured over three semesters according to subject specialization, assignment complexity, modality and degree of hetero-functionality. These are supplemented by dedicated courses focussing on thematic translation and applied linguistics theory, extra-linguistic knowledge, technological instrumental competence and professional service-provision skills. The didactic approaches may vary considerably from module to module or unit to unit, but the limited inter-modular transferability observable among students remains an issue that we and others are continually at pains to address.

2. Meeting the Didactic Challenge: Learning to Innovate

One obvious reaction, both at my home institution and elsewhere, has been to include a more integrated approach to learning by introducing smaller or greater portions of authentic experiential learning into the curriculum. For well over a decade, experiential learning with varying degrees of authenticity has enjoyed widespread and growing advocacy in translator and language-mediator education in general. They typically take the form of mentorships and work placements with concomitant reflective assessment instruments, such those provided by the European Graduate Placement Scheme (EGPS), or of intra-curricular learning scenarios like translation projects, student translation companies and agency simulators (Astley and Torres Hostench 2017; Hansen-Schirra and Kiraly 2013; Kiraly et al. 2016; Kiraly, Massey and Hofmann 2018; Mitchell-Schuitevoerder 2013; Vandepitte 2009; Varney 2009).

Authentic experiential learning has its epistemological roots in the experiential learning theory and model first systematically developed by Kolb (1984). This proposes a four-stage learning cycle strongly influenced by Lewin's (1946) action-research cycle (see below): concrete experience (the action part of the action-research cycle) prompts reflective observation of that experience, which leads to abstract conceptualization learned from the experience and feeds into the active experimentation of applying what has been learned. Authentic experiential learning in translator education is generally predicated on the assumption that only through deliberate practice (Ericsson, Krampe and Tesch-Roemer 1993; Shreve 2006) and reflection-in-action (Schön 1983; 1987) can the adaptive expertise necessary to the professional activity of translation and language mediation evolve. It is therefore compatible with social-constructivist approaches to competence development that assume meaning is collaboratively constructed in social learning environments, appropriately scaffolded by teachers to facilitate growing learner autonomy and the development of learners' self-regulatory capacities.

Perhaps the most consistent and fervent advocate of experiential learning in translator education has been Kiraly (2000; 2005; 2006; 2012a; 2012b; 2013; 2016). His incipient model (Kiraly 2000: 58) marks his break with a traditional cognitive apprenticeship of observation, transmission and replication that cannot describe or explain the complex interactions by which learners evolve into competent practitioners and experts. It contains three pillars, each representing a key dimension of learner empowerment. The first is autonomy, through which self-reliance is developed by incremental degrees of collaborative, student-centred activity. The second pillar is authenticity, which builds experience and reflective action by exposing students to increasingly authentic project work over the course of a curriculum. And finally, there is competence, which requires carefully structured and progressively tapered – or scaffolded – guidance to achieve the ultimate goal of translation expertise once graduates have entered the community of professional translation practice.

More recently, Kiraly has put forward a re-worked model of competence development based on emergentist principles of knowledge development and learning (Kiraly 2013; Kiraly and Hofmann 2016). Referring to Risku's (2002; 2010) now uncontroversial assertion that cognition is an embodied, socially situated and enactive process, he focuses on the 'translator moment' as an instantiation of embodied expert translator competence, visualized as a three-dimensional nexus of nodes with 'innumerable and unpredictable' links, and in which decision-making processes are 'uniquely adapted to each new translation problem' (Kiraly 2013: 207–209). On this basis, he

proposes a model of competence development (Kiraly 2013; 2016; Kiraly and Hofmann 2016) depicting a multiple series of vortices supported by environmental features that facilitate given activities, which Kiraly, with reference to Gibson (1979), calls 'affordances'. The model was initially intended as a 'heuristic for researchers, teachers and learners' (Kiraly 2013: 241) but has now been supported by various qualitative studies and action-research initiatives investigating aspects of experiential learning (e.g. Canfora 2016; Kiraly 2012a; 2013; Kiraly, Massey and Hofmann 2018; Massey and Brändli 2016).

Kiraly's model conceptualizes learning processes as non-linear, embodied, enactive, autopoietic (i.e. self-generating and self-sustaining) and co-emergent: '[t]ranslators [...] co-emerge with their fellow learners, their teachers, the institutions they attend and the entire community of translation practice with which and whom they interact' (Kiraly 2012b: 87–8). Moreover, as the previous quotation suggests, it is fractal, or scalable, and thus purports to 'depict learning within an individual, a class session, a group or even a community of practice' (Kiraly 2016: 64). It is the ramifications of this particular feature of the model that the rest of this contribution will address, as it holds important implications for the institutional frameworks in which the didactic challenge of truly competence-oriented teaching and learning must be met. In essence, all of us are, or should be, learning all the time – students, teachers, institutions and the external stakeholders from the community of practice with which they interact (for example, in the context of authentic experiential learning events). It falls to the translator-education institutions themselves to establish the pre-requisites, procedures and structures to facilitate those learning processes and thus empower learners at all levels, right up to that of the organization itself. This necessarily involves applying appropriate means and measures to develop competence amongst teaching staff, which has long been identified as a gap and pertinent need in translator education (European Commission Directorate-General for Translation 2013; Kelly 2005; 2008).

3. Meeting the Organizational Challenge: Learning from Innovation

The key step is not simply to introduce innovative teaching and learning into the curriculum, but to actually learn from doing so – both as teachers and as the organizations employing them. Pedagogical research on translator education is common, and entire journals are devoted to the subject. But an emergentist paradigm pre-supposes investigating and tracking the effects of learning events on all the actors involved, not just on the students themselves, an area that still appears to be under-researched.

A ready tool is provided by case-study action research, which has been enjoying increasing, though still somewhat restricted, recognition in Translation Studies (Bogucki 2013; Cravo and Neves 2007; Hubscher-Davidson 2008; Kiraly 2013; Massey, Jud and Ehrensberger-Dow 2015; Orlando 2016). Its main advantage lies in its practical and participative nature, with the potential to involve researchers, often the teachers themselves, directly with the beneficiaries of their research (Cravo and Neves 2007: 97; McKernan 1996: 31–3; Reason and Bradbury 2006/2010: 1), in other words those actors engaged in authentic experiential translation scenarios: students, teachers and teaching colleagues, of course, but also clients and client organisations, source-text writers, revisers, reviewers, terminologists, technologists and so on. It is well worth adding that action research promotes not only self-reflection to develop one's own practice, but has also, from its beginnings, overtly aimed at creating change at group, institutional and societal levels. This tradition has at times been obscured by a one-sided emphasis on individual reflection (Adelman 1993: 21), which has been the principal focus of most action research in translator education to date.

The classis cycle of action research, first outlined by its originator, Kurt Lewin (1946), comprises the stages of planning, acting, observing and reflecting. The cycle can be re-iterated, and indeed Lewin (1946: 38) himself referred to the process as a 'spiral of steps each of which is composed of a circle of planning, action, and fact-finding about the result of the action'. It is worth noting that Lewin's spiral has been rendered by Kemmis, McTaggart and Nixon (2014: 19), among others, as an image bearing a strong resemblance to Kiraly's vortices.

Lewin was himself a social researcher, but the participatory, practice-relevant principles of action research are applicable to many other disciplines and fields in which qualitative methods of enquiry are employed. It is applied widely in teacher education and, through the strategic deployment of the multiple iterations of the action-research cycle, has the potential to be used by educational institutions to guide syllabus and curriculum design from an organizational perspective. Such a perspective transcends the reflection and optimization processes pursued by individual teacher-researchers at the lower-order levels of discrete course units and modules, which until now has made up the bulk of action research reported in translator-education literature. McKernan's (1996: 27–33) multi-cyclical time-process model of curriculum development serves as just one of many examples of curricular-level implementation. In the first cycle of action, a particular situation, issue or research question is initially identified. Research-group roles, schedules and actions are then defined in an 'operational blueprint' (McKernan 1996: 28), which is subsequently implemented. The self-monitoring practitioners involved in the research reflect on their actions to understand their effects. After the data is analyzed and interpreted, new cycles of action are initiated as the original research problem or question is re-cast and reviewed, leading to new hypotheses to be included in the revised action plan that is then itself subjected to empirical observation, testing and re-evaluation (McKernan 1996: 28–9). How this can work is illustrated in the following section by examples from the present author's home institution, which is officially mandated to offer competence-based teaching that is research-driven.

4. Investigating Didactic Innovation: Deploying Case-study Action Research

Translation has long been recognised as an expert activity where the complex, idiosyncratic, ill-defined problems that are the norm can only be solved by adaptive expertise (Muñoz Martín 2014: 9). Its development depends decisively on fostering the metacognitive, self-regulatory capacities associated with reflective deliberate practice. The more conventional didactic approaches to promoting the metacognitive components of reflective practice among students comprise thesis writing, research workshops and theory courses, often delivered as lectures and/or seminars. Yet, implementing such stand-alone solutions carries with it all the shortcomings of curricular compartmentalization already mentioned above. The planning, execution, evaluation, reflection and review cycles of action research activate and develop precisely those capacities that are necessary pre-requisites to adaptive expertise. Thus, a coordinated strategy of institutionalizing participatory action research transversally across the curriculum becomes a viable complement, and quite possibly a long-term alternative, to compartmentalizing research and theory in often isolated dedicated courses and modules.

This vision has prompted my institution to adopt an increasingly systematic approach to conducting such research in order to enhance teaching practice and develop further the main strategic focal points of its curricula. Broadly speaking, two main avenues have been pursued: research into the feasibility and cognitive learning effects of process-oriented translation teaching as a supplement to more traditional product-oriented methods, and investigations of authentic experiential learning during collaborative translation projects with direct client participation. The former corresponds to what Toury (2012: 67–9) and Chesterman (2015: 7-9) refer to as the cognitive 'act' of translation, the latter to its situated 'event'.

Closely linked to the empirical validation of competence models like those mentioned above, process-oriented teaching to complement traditional product-oriented methods has been enjoying growing popularity in translator education (Massey 2017a). Process-oriented techniques have been deployed in translator education for a number of years to increase students' capacity to reflect on their decisions and actions and raise their problem-identification and problem-solving awareness. Methods range from written reflective commentaries, learning journals and integrated diaries (cf. Bergen 2009; García Álvarez 2007; Orlando 2011; 2016: 124–36), to the implementing more immediate concurrent techniques, such as spoken monologue, dialogue and collaborative think-aloud reports and protocols (House 2000; Kussmaul 1995; Pavlovič 2009). In the context of the current article, the written integrated problem and decision reporting (IPDR) proposed by Gile (2004) is especially interesting as IPDR, according to Gile's studies, appears to have produced learning effects on both students and teachers.

Technological developments over the past twenty years have broadened access to keystroke logging, screen recording and eye-tracking, which have been successfully used in a variety of pedagogical experiments and settings in combination with various forms of verbalization, peer evaluation, self-assessment and diagnostic mentoring (e. g. Alves 2005; Hansen 2006; Pym 2009). Screen recordings provide an especially practicable tool to facilitate student exposure to the good and better practices of others, such as those of professionals (Angelone 2013). Studies show them to be an effective supplement to product-based evaluation (Enríquez Raído 2013; Hofer and Ehrensberger-Dow 2011; Massey and Ehrensberger-Dow 2012; 2013) and they also appear to have the advantage of greater accuracy over forms of written reporting such as IPDR (Angelone 2015).

We therefore decided to use such methods and technologies, which we had been applying in our own research into laboratory and workplace translation processes and cognitive ergonomics (Ehrensberger-Dow and Massey 2014), to investigate their effects on learning when introduced to our BA and MA curricula. The reason for the decision was in no small part due to the frequent comments by research participants that they had been learning a great deal from observing and retrospectively commenting on screen recordings of their own translation processes.

The studies and outcomes have been reported in a number of publications, to which the readers are referred for more detailed information. Hofer and Ehrensberger-Dow (2011), Massey and Ehrensberger-Dow (2011; 2012; 2013; 2014), and Massey and Jud (2015) describe the benefits of screen recording and eye-tracking student, teacher and professional translation processes and practices for both teaching and diagnostic purposes on BA, MA and continuing professional development (CPD) programmes. The research outcomes replicate results of other didactic experiments using similar techniques to track and ameliorate student translation processes (Angelone 2013; Enríquez Raído 2013; Pym 2009). They strongly suggest that process-oriented techniques in general, and screen recording in particular, can achieve very positive learning effects amongst students in conventional and audio-visual translation (AVT) courses by heightening procedural and strategic awareness and by extending problem-solving repertoires.

The process-oriented teaching methods have also had a learning effect on the teachers and the institution they work for. Their use has improved the ability to identify group and individual needs on the basis of the actions and behaviours leading to target-text production. For example, exposing less experienced students to AVT and other tools too early in their studies appears to cause cognitive overload (Massey and Jud 2015), suggesting that more systematic scaffolding is required in courses where more complex technologies are deployed. In addition, indicators of good practices identified amongst better students and professional translators provide indicators that can help teachers, with appropriate institutional training and support, to guide students through the analyses of their processes. These include targeted problem-type identification, problem solving through the consistent deployment of internal cognitive resources, the selective use of external resources adequate to the type of problem identified, larger translation segmentation (reflected in longer writing bursts), minimal self-revision and reduced multiple tasking to avoid cognitive overload. Further research on performance predictors has also revealed that even 10 to 15 minute sequences of recorded or observed processes deliver robust measures for producing quality translation output (Massey and Ehrensberger-Dow 2014: 93–6). This is important because it makes the use of otherwise intensive process-oriented teaching techniques much more realistic for teachers burdened with time and group-size constraints. Finally, the teachers' recognition of the usefulness of process data and techniques has led them and their institution to question the epistemologies underlying their less individualized, more normative product-based methods of teaching and assessment.

So, who appears to be learning what, and from whom, in the cognitive process-oriented approaches to translator education we have been implementing and investigating? Our research and results show that students can and do learn about themselves, from and about their peers and from and about their teachers and professional practitioners. For their part, teachers can and do learn about themselves, from and about their students and from and about the professional practices introduced into their classes. At the same time, institutions can and do learn more about themselves and their programmes as well as about their students and their teachers.

Translation is patently a cognitive activity, but one firmly situated in a socio-technical environment. As such it is an obvious instance of situated cognition (Risku 2002; 2010), in which all kinds of partners and a variety of environmental factors interact with one another. The growing stress placed the authentic, often collaborative, experiential learning reflects the broad recognition of this fact in translator education. A variety of studies (Hansen-Schirra and Kiraly 2013; Kiraly et al. 2016) have been researching the effects of such deployments, including Massey and Brändli (2016). Again, readers are referred to that publication for more detailed information on the research methods and results. In the present contribution, we shall content ourselves with a brief overview of the study.

Massey and Brändli (2016) report on an action-research study of feedback interactions during a collaborative translation project commissioned by a real-world client organization and performed by a group of MA students at the author's institute with the help of the SDL TRADOS Studio translation memory system. The translation project was overseen by the class teacher, together with another researcher and an assistant. The fully anonymized

data were collected from a number of sources. Pre-project and post-project questionnaires were used to elicit self-report and peer data on the student participants' assessment of their competences. Secondly, the participants were requested to document the feedback sought and received, the sources from which it came and the perceived degree of its usefulness in a learning journal. Thirdly, the students took part in a recorded concluding plenary meeting in which they discussed their experiences during the project as both learners and participants in a research study. Finally, the students completed a wrap-up questionnaire about the feedback they had received on the translation product, the client organization produced a short written report assessing the outcome of the project after the target text had been received, and the teacher submitted a retrospective statement with her own observations on the translation project, on the students' involvement and on her own role and individual development as the project progressed.

The results supply some key insights into who learns what, where and how. There are clear indicators of students' perceived development in individual competences, particularly in the technological and interpersonal aspects of translation service provision. Additional comments made by the students also suggest that direct involvement in the action research itself strengthened their motivation to take part in the authentic learning experience. Feedback was reported in the learning journals, plenary discussion and final questionnaire (Massey and Brändli 2016: 190–3) to have worked best when it was timely, task relevant, peer-sourced for process-related issues, which ranged from technology use and project management to problem-solving and quality assurance, and client- or teacher-sourced for the product, where the principal stress lay on target-text quality. The findings support those of general pedagogical research on effective feedback in that the most useful modes of feedback delivery were considered to be bilateral, dialogical, interactive and unmediated (Wiliam 2010). More pertinently, however, they provide our organization with a catalogue of practical corrective measures to render feedback more effective in future collaborative learning scenarios.

Equally salient from an organizational perspective are the results indicating complementary experiential learning effects on actors other than the students. The teacher explicitly learned from the project, both technologically and didactically. But her comments also describe the cognitive conflict with which she was confronted. The minimally invasive approach she deliberately adopted in her teaching appears to have been, at least initially, fundamentally incompatible with her own underlying, and hitherto largely unconscious, pedagogical epistemology. This is an important revelation both for herself and her institution. In essence, the teacher's participation in this action-research initiative embodies the reflective (teaching) practice necessary to developing or maintaining adaptive expertise. In turn, this has implications for the learning organization in which she is working, which has already responded by introducing appropriate staff-development measures.

Last but not least, the client's assessment of the students' performance demonstrated advanced awareness of central elements of the translation process. Aspects of stakeholder involvement and interests, distributed cognition and functionalism are either directly stated or can be inferred from the comments made, which placed surprisingly little emphasis on the language and source document *per se*. Such a discerning assessment could well be attributed to the client organization's own learning path. In the course of the project, its representatives were consistently exposed to the discourse of the student and teacher participants, in which the frameworks, models, issues and phraseology of Translation Studies and the translation profession evidently figured large.

The indicators of co-emergent learning processes among all the participants in the study, coupled with the motivation that students reported, have encouraged our organization to launch further action-research cycles. These envisage a more inclusive role for students and external stakeholders, not only as research subjects but also as active participants in the collection, analysis and interpretation of data (cf. Kiraly, Massey and Hofmann 2018; Massey and Brändli 2016).

To sum up, course design and curriculum development are obvious ways in which educational institutions, and not just their teacher-researchers, might learn from case-study action research; but there are others. As we have already seen, further learning effects at the institutional level can emerge from organizational reflection on the reflective performance of teacher-researchers. Lastly, there also seem to be effects on those external stakeholders from the community of practice directly engaged in authentic learning scenarios at the translator-education institution. Indeed, here lies the truly transformative potential of action research involving clients and groups unfamiliar with the profession to learn more about its nature and demands. By identifying strategically suitable actors to include in such projects, institutions have an opportunity to transcend the boundaries of both academe and professional specialization and spread a greater awareness of translation as an expert activity within society at large.

5. From Student to Teacher and Institutional Development: A Frame for Empowering the Learning Organization

The results obtained from the studies summarized above validate the continued use of case-study action research, which does indeed appear to be 'a viable tool for increasing our understanding of the processes involved in the development of translator competence' (Kiraly 2013: 222), to advance our ability to develop translator competence among our students. The action-research approach has the particular advantage of being able to engage all the participants involved in a practical learning event in an iterative, multi-cyclical process of planning, action, observation and reflection.

As such, it also has the potential to serve as a tool with which to develop not only individual participants but also the collective in which they are embedded. The systematic strategic deployment of case-study action research can therefore be used to help drive organizational development in its own right (cf. Kiraly, Massey and Hofmann 2018). Institutions could, for example, use its combination of action and enquiry as a locus for bridging the academic-practitioner divide noted in the introduction to this paper by including practitioners, teaching professionals and their students in targeted research on competence building (Massey, Jud and Ehrensberger-Dow 2015: 43). This would have the positive outcome of moving all stakeholders, at all levels, closer to the reflective practice requisite to developing adaptive expertise.

There are unmistakeable parallels between the cycles of action research – and, by extension, of experiential learning (Kolb 1984) – and those proposed by action science for organizational learning. This is not surprising, as one of the authors of the early ground-breaking work on *Organizational Learning* (Argyris and Schön 1978), Chris Argyris, stands firmly in the Lewin social research tradition of group and organizational development (Adelman 1993: 21). Argyris and Schön (1978: 29) distinguish between two types of learning system. In 'single-loop

learning' (O-I), 'individuals respond to error by modifying strategies and assumptions within constant organizational norms'. In 'double-loop learning', there is 'joint inquiry into organizational norms themselves, so as to resolve their inconsistency and make the new norms more effectively realizable'. It is only by achieving double-loop learning and, ultimately, 'deutero-learning' (Argyris and Schön, 1978: 29) – meaning the capacity of an organization and its members to self-regulate their learning – that a true learning organization can emerge. Argyris and Schön's (1978: 140–1) 'O-II' model of 'double-loop learning' depicts learning by members and groups within an organization as a series of individual learning cycles or wheels encompassed by the same, larger cycle representing learning by the organization itself. The cycle with its four stages of discovery, invention, production and generalization still has considerable currency in organizational learning theory, as some more recent publications show (Cummings and Worley 2013; Sabri and Sabri-Matanagh 2013), and bears a close resemblance to the action-research cycle. The 'discovery' stage identifies a problem, 'invention' designates the development of a solution (both subsumable under the planning stage in action research), 'production' represents (the observation of) its implementation in action and 'generalization' refers to drawing conclusions about its effects through reflection. In other words, in virtually the same way that the action-research cycle promotes reflective action and learning in individual participants (students, teachers and others), so the cycle of double-loop learning promotes reflective action and learning at the organizational level.

This, in turn, recalls the models of co-emergent learning variously proposed in Kiraly (2016), Kiraly and Hofmann (2016) and Kiraly, Massey and Hofmann (2018). As already mentioned, the learning that takes place according to this model is necessarily supported by affordances, in other words by facilitating environmental features. Learning, whether individual, collective or institutional, is situated in complex socio-technical and organizational systems. The capacity to foster such learning by shaping the affordances that support it therefore becomes key to the success of learning in and as organizations. As the systems scientist, Peter Senge, has famously pointed out in *The Fifth Discipline: The Art and Practice of the Learning Organization* (1990/1999), organizations should provide the frameworks for their members to engage consistently in systems thinking, to develop the personal mastery to commit to lifelong learning, to scrutinize and constantly challenge deeply ingrained mental models, to possess the intrinsic motivation to build shared visions and to learn from one another in teams. When specifically related to professional (translator) education, this means promoting individual and organizational learning by developing the fields, traditions and incentives for reflective practice (cf. Schön 1987: 311; Senge 1990/1999: 258–9).

Garvin, Edmondson and Gino (2008) have devised a widely recognized toolkit to foster organizational learning. Proposing a 'comprehensive, concrete survey instrument for assessing learning within an organization' (Garvin, Edmondson and Gino 2008: 3) that can be scaled up or down to any level of an organization, they focus on three mutually reinforcing building blocks of organizational learning. The first is a supportive learning environment with four distinguishing features: psychological safety, which encourages members to openly express their opinions; appreciation of differences and opposing ideas; openness to new ideas; and, perhaps most importantly, time for reflection: 'supportive learning environments allow time for a pause in the action and encourage thoughtful review of the organization's practices' (Garvin, Edmondson and Gino 2008: 3). The second building block comprises concrete learning processes and practices: opportunities for experimentation; information collection (for example, on competitors, trends and stakeholders); issue analysis and discussion; systematic education and training opportunities; information transfer and sharing; and regular debriefings and post-audits. The third is having a leadership willing and able to reinforce learning.

How can all or parts of this toolkit be used to target the affordances of co-emergent learning in translator-education institutions? Every organization will have its particular needs, processes and structures to take into account. The present paper ends with some examples from the author's home institution.

More conventional ways of operationalizing the cycles of information collection, information transfer, feedback and reflection include staff, course and curriculum evaluations, peer reviewing, sounding boards and graduate career tracking. These have been supplemented with CPD and curricular development measures to foster co-emergent learning and reflective practice among students, teachers, researchers, managers and, wherever feasible, external practice partners.

In concrete terms, we are preparing to implement an organizational development concept to facilitate and incentivize the professional development of our staff members. This centres on using low-threshold, efficient CPD opportunities to meet the mandatory requirement that all academic and teaching staff must fulfil. That concept, together with its implementing regulation, is based on the consolidation and development of three broad staff-competence areas derived from the *EMT Translator Trainer Profile* (European Commission Directorate-General for Translation 2013): professional translation service provision (corresponding to 'field competence' in the EMT profile), didactics (the profile's 'instructional', 'interpersonal', 'organisational' and 'assessment' competences) and theoretical field knowledge (represented in the profile as the integration of translation scholarship and research, and subsumed under 'instructional competence'). Staff CPD for our academic and professional educators will be individualized to take account of their specific competence profiles.

Measures already initiated, or envisaged in the near future, comprise job shadowing and professional mentorships, mandatory freelance work for staff without translation experience, as well as the continued expansion of our various forums to promote exchanges between teachers, researchers and professional practitioners. As outlined above, our various teaching methods and scenarios constitute a wealth of learning opportunities that may be used to expose academic staff to the realities of the professional world of translation. In addition, we intend to provide further incentives to pursue case-study action research, wherever possible with the direct involvement of client organizations. By encouraging team teaching and mutual attendance of modules, we also hope to broaden the range of our staff members and thus narrow the divide between theory and practice that besets many translator-education institutions. To facilitate and strengthen the transfer of learning between our institute and professional practice, we are setting up more combined BA, MA and CPD offerings. Finally, to provide our organization with that most valuable of resources, time for reflection, we have now redesigned our schedules so that staff and students are given two extra weeks during the semester for independent study and professional development. It is our hope that the measures we have adopted, together with others to come, will create the affordances needed to drive co-emergent learning throughout our organization.

6. Conclusion

Case-study action research (Kiraly 2012a; 2012b; 2013; Kiraly and Hofmann 2016; Kiraly, Massey and Hofmann 2018) has shown that Kiraly's fractal model of co-emergent learning can account for student competence development in experiential scenarios. There is additional evidence (Kiraly, Massey and Hofmann 2018; Massey and Brändli 2016; Massey 2017b) that Kiraly's model can be applied to describe learning among the various other stakeholders of translator education: teachers, researchers, clients and even educational institutions themselves. The model is congruent with established theories of organizational learning, where learning capacity hinges on the ability of an organization and its members to learn how to learn, and where the learning process itself involves very similar cycles of action and enquiry to those applied to action research, on the one hand, and to experiential learning, on the other. It would therefore seem appropriate for educational institutions to strategically and systematically deploy case-study action research, particularly in experiential learning contexts, as a tool with which to drive organizational learning and development. However, targeting the complex, multifarious affordances that facilitate co-emergent learning requires a whole set of tools and not just one. The wide-ranging toolkit developed by Garvin, Edmondson and Gino (2008) is just one example of how a workable frame might be established to empower institutions to adopt a more transformative role in educating not only translators and other language mediators, but also teachers, researchers and the organizations in and with which they work.

References

Adelman, Clem (1993) "Kurt Lewin and the Origins of Action Research", *Educational Action Research* 1, no. 1: 7–24.

Alves, Fabio (2005): "Bridging the Gap between Declarative and Procedural Knowledge in the Training of Translators: Meta-reflection under Scrutiny", *Meta* 50, no. 4, URL: **https://www.erudit.org/revue/meta/2005/v50/n4/019861ar.pdf** (accessed 15 January 2018)

Angelone, Erik (2013) "Watching and Learning from 'Virtual Professionals': Utilising Screen Recording in Process-oriented Translator Training" in *New Prospects and Perspectives for Educating Language Mediators*, Don Kiraly, Silvia Hansen-Schirra and Karin Maksymski (eds), Tübingen, Narr Francke Attempto: 139–55.

---- (2015) "The Impact of Process Protocol Self-analysis on Errors in the Translation Product" in *Describing Cognitive Processes in Translation: Acts and Events*, Maureen Ehrensberger-Dow, Birgitta Englund Dimitrova, Séverine Hubscher-Davidson and Ulf Norberg (eds), Amsterdam & Philadelphia PA, Benjamins: 105–124.

Argyris, Chris, and Donald A. Schön (1978) *Organizational Learning: A Theory of Action Perspective*, Reading MA, Addison-Wesley.

Astley, Helen, and Olga Torres Hostench (2017) "The European Graduate Placement Scheme: An Integrated Approach to Preparing Master's in Translation Graduates for Employment", *The Interpreter and Translator Trainer* 11, nos. 2–3: 204–22.

Bergen, David (2009). "The Role of Metacognition and Cognitive Conflict in the Development of Translation Competence", *Across Languages and Cultures* 10, no. 2: 231–50.

Bogucki, Lukasz (2013) *Areas and Methods of Audiovisual Translation Research*, Frankfurt am Main, Lang.

Canfora, Carmen (2016) "Assessing Learning in Heterogeneous Learning Groups in Translator Training – A Role for Portfolios" in *Towards Authentic Experiential Learning in Translator Education*, Don Kiraly et al. (eds), Göttingen, V&R unipress/Mainz University Press: 161–76.

Chesterman, Andrew (2015) "Models of What Processes?" in *Describing Cognitive Processes in Translation: Acts and Events*, Maureen Ehrensberger-Dow, Birgitta Englund Dimitrova, Séverine Hubscher-Davidson and Ulf Norberg (eds), Amsterdam & Philadelphia PA, Benjamins: 7–20.

Cravo, Ana, and Josélia Neves (2007) "Action Research in Translation Studies", *Journal of Specialised Translation* 7: 92–107.

Cummings, Thomas G., and Christopher G. Worley (2013) *Organization Development and Change* (10th ed.), Stamford CT: Cengage Learning.

Drugan, Joanna (2013) *Quality in Professional Translation: Assessment and Improvement*, London, Bloomsbury.

Ehrensberger-Dow, Maureen, and Gary Massey (2014) "Cognitive Ergonomic Issues in Professional Translation" in *The Development of Translation Competence: Theories and Methodologies from Psycholinguistics and Cognitive Science*, John W. Schwieter and Aline Ferreira (eds), Newcastle, Cambridge Scholars: 58–86.

EMT Board (2017) *European Master's in Translation. Competence Framework 2017*, Brussels, European Commission. URL: **https://ec.europa.eu/info/sites/info/files/emt_competence_fwk_2017_en_web.pdf** (accessed 10 May 2018)

EMT Expert Group (2009) *Competences for Professional Translators, Experts in Multilingual and Multimedia Communication*, Brussels, European Commission. URL: https://ec.europa.eu/info/sites/info/files/emt_competences_translators_en.pdf (accessed 10 May 2018)

EN 15038 (2006) *Translation Services—Service Requirements*, Brussels, European Committee for Standardization.

Enríquez Raído, Vanessa (2013) "Using Screen Recording as a Diagnostic Tool in Early Process-oriented Translator Training" in *New Prospects and Perspectives for Educating Language Mediators*, Don Kiraly, Silvia Hansen-Schirra and Karin Maksymski (eds), Tübingen, Narr Francke Attempto: 121–38.

Ericsson, K. Anders, Ralph Th. Krampe and Clemens Tesch-Roemer (1993) "The Role of Deliberate Practice in the Acquisition of Expert Performance", *Psychological Review* 100, no. 3: 363–406.

European Commission Directorate-General for Translation (2013) *EMT Translator Trainer Profile. Competences of the Trainer in Translation*. URL: https://de.scribd.com/document/246979198/Translator-Trainer-Profile-EMT (accessed 15 January 2018)

---- (2014) *Report and Follow-up Actions: Translation Europe Forum 2014. Linking up Translation Stakeholders*.

URL: http://ec.europa.eu/dgs/translation/programmes/translating_europe/documents/report_actions_2014_en.pdf (accessed 30 May 2016)

García Álvarez, Ana María (2007) "Evaluating Students' Translation Process in Specialised Translation: Translation Commentary", *Journal of Specialised Translation* 7: 139–63.

Garvin, David A., Amy C. Edmondson and Francesca Gino (2008) "Is Yours a Learning Organization?", *Harvard Business Review* March: 1-10.

Gibson, James J. (1979) *The Ecological Approach to Visual Perception*, Hillsdale NJ, Erlbaum.

Gile, Daniel (2004) "Integrated Problem and Decision Reporting as a Translator Training Tool", *Journal of Specialised Translation* 2: 2–20.

Göpferich, Susanne (2008) *Translationsprozessforschung: Stand –Methoden – Perspektiven*, Tübingen, Narr.

---- (2009) "Towards a Model of Translation Competence and its Acquisition: The Longitudinal Study 'TransComp'" in *Behind the Mind: Methods, Models and Results in Translation Process Research*, Susanne Göpferich, Arnt L. Jakobsen and Inger M. Mees (eds), Copenhagen, Samfundslitteratur Press: 11–37.

Hansen, Gyde (2006) "Retrospection Methods in Translator Training and Translation Research", *Journal of Specialised Translation* 5: 2–41.

Hansen-Schirra, Silvia, and Don Kiraly (eds) (2013) *Projekte und Projektionen in der translatorischen Kompetenzentwicklung*, Frankfurt am Main, Lang.

Hofer, Gertrud, and Maureen Ehrensberger-Dow (2011): "Evaluation of Translation Processes: Applying Research Techniques to Professional Development Programs" in *Translationsforschung: Tagungsberichte der LICTRA IX. Leipzig International Conference on Translation & Interpretation Studies 19.–21.5.2010*, Peter A. Schmitt, Susann Herold and Annette Weilandt (eds), Frankfurt am Main, Lang: 321–32.

House, Juliane (2000) "Consciousness and the Strategic Use of Aids in Translation" in *Tapping and Mapping the Processes of Translation and Interpreting: Outlooks on Empirical Research*, Sonja Tirkkonen-Condit and Riitta Jääskeläinen (eds), Amsterdam & Philadelphia PA, Benjamins: 149–62.

Hubscher-Davidson, Séverine (2008) "A Reflection on Action Research Processes in Translator Training", *The Interpreter and Translator Trainer* 2, no. 1: 75–92.

Hurtado Albir, Amparo (2007) "Competence-based Curriculum Design for Training Translators", *The Interpreter and Translator Trainer* 1, no. 2: 163–95.

ISO 17100 (2015). *Translation Services – Requirements for Translation Services*, Geneva, ISO.

Kelly, Dorothy (2005) *A Handbook for Translator Trainers*, Manchester, St. Jerome.

---- (2007) "Translator Competence Contextualized. Translator Training in the Framework of Higher Education Reform: In Search of Alignment in Curricular Design" in *Across Boundaries: International Perspectives on Translation Studies*, Dorothy Kenny and Kyongjoo Ryou (eds), Newcastle, Cambridge Scholars: 128–42.

---- (2008) "Training the Trainers: Towards a Description of Translator Trainer Competence and Training Needs Analysis", *TTR: traduction, terminologie, rédaction* 21, no. 1: 99–125.

---- (2017) "Translator Education in Higher Education Today: The EHEA and Other Major Trends. Convergence, Divergence, Paradoxes and Tensions" in *Translation/Interpreting Teaching and the Bologna Process: Pathways between Unity and Diversity*, Susanne Hagemann, Julia Neu and Stephan Walter (eds), Berlin, Frank & Timme: 29-50.

Kemmis, Stephen, Robin McTaggart and Rhonda Nixon (2014) *The Action Research Planner: Doing Critical Participatory Action Research*, Singapore, Springer.

Kiraly, Don (2000) *A Social Constructivist Approach to Translator Education: Empowerment from Theory to Practice*, Manchester, St. Jerome.

---- (2005) "Project-based Learning: A Case for Situated Translation", *Meta* 50, no. 4: 1098–111.

---- (2006) "Beyond Social Constructivism: Complexity Theory and Translator Education", *Translation and Interpreting Studies* 1, no. 1: 68–86.

---- (2012a) "Skopos Theory Goes to Paris: Purposeful Translation and Emergent Translator Competence" in *mTm. Minor Translating Major – Major Translating Minor – Minor Translating Minor. Special Issue of mTm to Commemorate Hans J. Vermeer (mTm – A Translation Journal),* Hanna Risku, Christina Schäffner and Jürgen Schopp, (eds.), Athens, Diavlos: 119–44.

---- (2012b) "Growing a Project-based Translation Pedagogy: A Fractal Perspective", *Meta* 57, no. 1: 82–95.

---- (2013) "Towards a View of Translator Competence as an Emergent Phenomenon: Thinking Outside the Box(es) in Translator Education" in *New Prospects and Perspectives for Educating Language Mediators*, Don Kiraly, Silvia Hansen-Schirra and Karin Maksymski (eds), Tübingen, Narr Francke Attempto: 197–224.

---- (2016) "Authentic Project Work and Pedagogical Epistemologies: A Question of Competing or Complementary Worldviews?" in *Towards Authentic Experiential Learning in Translator Education*, Don Kiraly et al. (eds), Göttingen, V&R unipress/Mainz University Press: 53–66.

Kiraly, Don, Lisa Rüth, Carmen Canfora, C and Andrea Cnyrim (eds) (2016). *Towards Authentic Experiential Learning in Translator Education*, Göttingen, V&R unipress/Mainz University Press.

Kiraly, Don, and Sascha Hofmann (2016) "Towards a Postpositivist Curriculum Development Model for Translator Education" in *Towards Authentic Experiential Learning in Translator Education*, Don Kiraly et al. (eds), Göttingen, V&R unipress/Mainz University Press: 67–87.

Kiraly, Don, Gary Massey and Sascha Hofmann (2018) "Beyond Teaching: Towards Co-Emergent Praxis in Translator Education" in *Translation, Didaktik, Kompetenz. Translationswissenschaftliches Kolloquium V. Beiträge zur Übersetzungs- und Dolmetschwissenschaft*, Barbara Ahrens, Silvia Hansen-Schirra, Monika Krein-Kühle, Michael Schreiber and Ursula Wienen (eds), Berlin, Frank & Timme.

Kolb, David. A. (1984) *Experiential Learning: Experience as the Source of Learning and Development*, Englewood Cliffs NJ, Prentice Hall.

Kussmaul, Paul (1995) *Training the Translator*, Amsterdam & Philadelphia PA, Benjamins.

Lewin, Kurt (1946) "Action Research and Minority Problems", *Journal of Social Issues* 2, no. 4: 34-46.

Massey, Gary (2017a) "Translation Competence Development and Process-oriented Pedagogy" in *The Handbook of Translation and Cognition*, John W. Schwieter and Aline Ferreira (eds), Chichester, Wiley-Blackwell: 520–44.

---- (2017b) "Research-driven Translation Teaching: Doing Applied Linguistics to Empower the Learning Organisation", in *Doing Applied Linguistics. Enabling Transdisciplinary Communication. Festschrift für Urs Willi*, Daniel Perrin and Ulla Kleinberger (eds), Berlin, de Gruyter, 184–93.

Massey, Gary, and Barbara Brändli (2016) "Collaborative Feedback Flows and How We Can Learn from Them: Investigating a Synergetic Experience in Translator Education" in *Towards Authentic Experiential Learning in Translator Education*, Don Kiraly et al. (eds), Göttingen, V&R unipress/Mainz University Press: 177–99.

Massey, Gary, and Maureen Ehrensberger-Dow (2011) "Commenting on Translation: Implications for Translator Training", *Journal of Specialised Translation* 16: 26–41.

---- (2012) "Evaluating the Process: Implications for Curriculum Development" in *Translationswissenschaft interdisziplinär: Fragen der Theorie und der Didaktik*, Lew Zybatow, Alena Petrova and Michael Ustaszewski (eds), Frankfurt am Main, Lang: 95–100.

---- (2013) "Evaluating Translation Processes: Opportunities and Challenges" in *New Prospects and Perspectives for Educating Language Mediators*, Don Kiraly, Silvia Hansen-Schirra and Karin Maksymski (eds), Tübingen, Narr Francke Attempto: 157–80.

---- (2014) "Looking beyond Text: The Usefulness of Translation Process Data" in *Methods in Writing Process Research*, Dagmar Knorr, Carmen Heine and Jan Engberg (eds), Bern, Lang: 81–98.

Massey, Gary, and Peter Jud (2015) "Teaching Audiovisual Translation with Products and Processes: Subtitling as a Case in Point" in *Accessing Audiovisual Translation*, Lukasz Bogucki and Mikolaj Deckert, (eds), Frankfurt am Main, Lang: 99–116.

Massey, Gary, Peter Jud and Maureen Ehrensberger-Dow (2015) "Building Competence and Bridges: The Potential of Action Research in Translator Education" in *Constructing Translation Competence*, Paulina Pietrzak and Mikolaj Deckert (eds), Frankfurt am Main, Lang: 27–48.

McKernan, James (1996) *Curriculum Action Research: A Handbook of Methods and Resources for the Reflective Practitioner* (2nd ed.), London & New York NY, Routledge.

Mitchell-Schuitevoerder, Rosemary (2013) "A Project-based Methodology in Translator Training" in *Tracks and Treks in Translation Studies: Selected Papers from the EST Congress, Leuven 2010*, Catherine Way, Sonia Vandepitte, Reine Meylaerts and Magdalena Bartłomiejczyk (eds), Amsterdam & Philadelphia PA, Benjamins: 127–42.

Muñoz Martín, Ricardo (2014) "Situating Translation Expertise: A Review with a Sketch of a Construct", in *The Development of Translation Competence: Theories and Methodologies from Psycholinguistics and Cognitive Science*, John W. Schwieter and Aline Ferreira (eds), Newcastle, Cambridge Scholars: 2–56.

Orlando, Marc (2011) "Evaluation of Translations in the Training of Professional Translators: At the Crossroads between Theoretical, Professional and Pedagogical Practices", *The Interpreter and Translator Trainer* 5, no. 2: 293–308.

---- (2016) *Training 21st Century Translators and Interpreters: At the Crossroads of Practice, Research and Pedagogy*, Berlin, Frank & Timme.

PACTE (2000) "Acquiring Translation Competence: Hypotheses and Methodological Problems in a Research Project" in *Investigating Translation. Selected Papers from the 4th International Congress on Translation, Barcelona, 1998*, Allison Beeby, Doris Ensinger and Marisa Presas (eds), Amsterdam & Philadelphia PA, Benjamins: 99–106.

---- (2003) "Building a Translation Competence Model" in *Triangulating Translation: Perspectives in Process Oriented Research*, Fabio Alves (ed.), Amsterdam & Philadelphia PA, Benjamins: 43–66.

---- (2005) "Investigating Translation Competence: Conceptual and Methodological Issues", *Meta* 50, no. 2: 609–19.

Pavlovič, Nataša (2009) "More Ways to Explore the Translating Mind: Collaborative Translation Protocols" in *Behind the Mind: Methods, Models and Results in Translation Process Research*, Susanne Göpferich, Arnt L. Jakobsen and Inger M. Mees, (eds), Copenhagen, Samfundslitteratur Press: 81–105.

Pym, Anthony (2003) "Redefining Translation Competence in an Electronic Age: In Defence of a Minimalist Approach", *Meta* 48, no. 4: 481–97.

---- (2009) "Using Process Studies in Translator Training: Self-discovery through Lousy Experiments" in *Behind the Mind: Methods, Models and Results in Translation Process Research*, Susanne Göpferich, Arnt L. Jakobsen and Inger M. Mees (eds), Copenhagen, Samfundslitteratur Press: 135–56.

Reason, Peter, and Hilary Bradbury (2006/2010) *The Handbook of Action Research* (concise paperback ed.), London, Sage.

Risku, Hanna (1998) *Translatorische Kompetenz: kognitive Grundlagen des Übersetzens als Expertentätigkeit*, Tübingen, Stauffenburg.

---- (2002) "Situatedness in Translation Studies", *Cognitive Systems Research* 3, no. 3: 523–33.

---- (2010) "A Cognitive Scientific View on Technical Communication and Translation: Do Embodiment and Situatedness Really Make a Difference?", *Target* 22, no. 1: 94–111.

Sabri, Sahab, and Saeed Sabri-Matanagh (2013), *Organizational Development and Strategic Change*, Victoria, Academics Publishing.

Schön, Donald A. (1983) *The Reflective Practitioner: How Professionals Think in Action*, New York NY, Basic Books.

---- (1987) *Educating the Reflective Practitioner*, San Francisco CA, Jossey-Bass.

Senge, Peter M. (1990/1999) *The Fifth Discipline: The Art and Practice of the Learning Organization*, London, Random House.

Shreve, Gregory M. (2006) "The Deliberate Practice: Translation and Expertise", *Journal of Translation Studies* 9, no. 1: 27–42.

Toury, Gideon (2012) *Descriptive Translation Studies—And Beyond* (revised ed.), Amsterdam & Philadelphia PA, Benjamins.

Vandepitte, Sonia (2009) "Entrepreneurial Competences in Translation Training" in *Eighth Portsmouth Translation Conference Proceedings. The Changing Face of Translation*, Ian Kemble (ed.), University of Portsmouth, Portsmouth: 120-30.

Varney, Jennifer (2009) "From Hermeneutics to the Translation Classroom: A Social Constructivist Approach to Effective Learning", *International Journal for Translation and Interpreting Research* 1, no. 1: 27-43.

Wiliam, Dylan (2010): "The Role of Formative Assessment in Effective Learning Environments" in *The Nature of Learning: Using Research to Inspire Practice*, Hanna Dumont, David Istance and Francisco Benavides (eds), Paris, OECD Publishing: 135–59.