VOL. 15_ISSUE 1_2019

INTERNATIONAL JOURNAL OF ACTION RESEARCH

Barbara Budrich Publishers

ISSN 1861-1303

Contents

Editorial

First of all, we are glad to welcome two new editors to our team, Olav Eikeland and Miren Larrea. Olav Eikeland is currently professor of educational and work life research at the Oslo Metropolitan University (OsloMet). From 1985 to 2008 he worked at the Work Research Institute (WRI) in Oslo as researcher, research director, and CEO. His research has focused on action research, its legitimacy and institutionalisation in Norway and modern societies. He has also done research in ancient philosophy, general theories of knowledge, philosophical and methodological aspects of mainstream social science and research, and learning in modern organisations.

Miren Larrea is Senior researcher at Orkestra, Basque Institute of Competitiveness and lecturer at the University of Deusto. Her research focuses on action research for territorial development, in the intersection of regional innovation systems, local economic development and action research. She is the academic director of the Territorial Development Laboratory, an action research program supported by the Provincial Council of Gipuzkoa initiated in 2009. In addition to academic experience, her trajectory combines practitioner experience in the development of cooperation networks in a county development agency.

This first issue of 2019 keeps up with the tradition of the *International Journal of Action Research* to publish articles from different socio-political and organisational contexts. In the years, action research has broadened its scope and developed new theoretical insights. In the five articles presented in this issue, we hope to share some of the practices and reflections that reveal the renewed relevance of action research today.

In "Re-envisioning Innovation: From Vision to Strategy to Plan and Back Again" Michal Lysek, Jörgen Palmhager, Mike Danilovic describe an action research study that took place in a Swedish industrial communications business. It focuses on the company's business and innovation strategy, particularly on the orientations and motivations of employees. The study provides the reader with some fresh insights into how companies engage, or fail to engage, their employees both in 'vision' and in innovation as a process particularly during the different phases of growth. The results show that people have different mindsets throughout these phases and going back is challenging because while the organisation´s employees need a vision, visions come without detailed plans and will not work unless they are supplemented by inspirational communication. The study also provides the

 https://doi.org/10.3224/ijar.v15i1.01

company's management with a better understanding of how it might engage its employees in its vision and re-engage them in innovation.

Horacio Bozzano and Tomás Canevari, in "Scientific Agendas and Work Tables. An action research initiative in La Plata, Ensenada and Berisso, Argentina" analyse the scientific agendas and permanent work tables as emerging concepts developed over three decades of Participatory-Action-Research in Argentina. Two cases, one in an informal urbanisation and the other in an industrial and residential flood zone in La Plata, Ensenada and Berisso, Buenos Aires, Argentina, give meaning to two Agendas with their respective Tables: "Puente de Fierro Possible Territory" and "Territory, Industry and Environment". The purpose was to develop a scientific approach that brings closer the wishes and needs of people with public policies, analysing the relationships between political, economic and social powers, as well as in the multiple micro-powers at play. The paper is organised in three parts, what science, what agendas, and what praxis, challenging the researcher to think though his/her basic assumptions regarding these three components of any action research process.

The article "Exploring Doctorateness in Insider Action Research", by David Coghlan, Paul Coughlan and Abraham B. (Rami) Shani presents the process of learning/practicing action research as a doctoral student who is at the same time part of the empirical context of his/her research. As action research is sometimes regarded as not or little "academic" or "scientific" in universities and research centres, the article is an important contribution for definitively integrating action research as an indispensable tool for social research today. The distinction of first, second and third person inquiry/practice is relevant for bringing into dialogue the subjective dimension of research with the challenge of objectivity, of theory and practice, of the local and broader context. Furthermore, the authors use a language that highlights the didactical and practical character of the text for the education of researchers. The tables and the figure are helpful for illustrating and summing up the arguments.

Amir Kalan, Parisa Jafari, and Mahdyar Aghajani, in the article "A Collaborative practitioner inquiry into societal and power-relational contexts of activist writing community's textual events" describe experiences with a community literacy approach to writing instruction in a cultural studies and literary criticism workshop in Tehran, Iran (2009-2014). The writers narrate the process of writing a book by a group of Iranian feminists, who chose to write about and critique dominant discourses in Iranian hip hop in an attempt to start a conversation with young underground Iranian rappers. Adopting collaborative practitioner inquiry, the researchers discuss different steps of the process of writing and publishing the book, and also the pitfalls and challenges that they encountered in the project and the ensuing interventions. In the course of sharing their reflections, the writers highlight the sociocultural and power relational contexts of their writing process to sensitise writing instructors to the often invisible social and political layers of the act of writing.

Coming from the Philippine context, the article "Technology's roles in student-centred learning in higher education", by Jose Eos Trinidad, and Galvin Radley Ngo, refers to an action research project on how teachers from different areas of knowledge use information and communication technologies and how students respond to their use. The study emphasises discussion and understanding about how technologies can contribute to improved student learning by adopting the student-centered learning perspective associated with the use

of technologies. It is suggested that such use may be most effective when teachers are trained in the appropriation of technological resources and tools.

Our thanks to the authors and reviewers who contributed to this issue of the *International Journal of Action Research.*

Danilo R. Streck
Editor-in-chief

Re-envisioning Innovation: From Vision to Strategy to Plan and Back Again

Michal Lysek, Jörgen Palmhager and Mike Danilovic

Abstract
HMS is a Swedish company and a global market leader in the industrial communication industry. Initially, HMS was managed with a vision of a connected industry. Gradually, that vision was complemented with strategies on how to reach that vision. In line with the company's growth and acquisitions, these strategies started to substitute their vision and they began to be supplemented with much more detailed plans. As the company's offer expanded, these detailed plans began to take over as the company's primary instrument of guidance. In other words, HMS went through three phases: From a "Market Establishment" phase (with a vision as their primary guideline), to a "Market Development" phase (with strategies as their primary guideline), and finally to a "Market Maturity" phase (with detailed plans their primary guideline). In so doing, their vision became less challenging/ motivating for HMS' employees. An action research approach was used, influenced by grounded theory. The results showed that people have different mindsets throughout these phases, and going back is challenging because while HMS' employees need a vision, visions come without detailed plans and will not work unless they are supplemented by inspirational communication and passionate innovation champions who can push forward without any detailed plans.

Keywords: Employee needs, innovation champions, plans, strategies, visions.

Re-previendo la innovación: de la visión a la estrategia para la planificación y viceversa

Resumen
HMS es una empresa sueca, líder del mercado global en la industria de la comunicación industrial. Inicialmente, HMS se gestionó con la visión de una industria conectada. Gradualmente, esta visión se complementó con estrategias sobre cómo alcanzar esa visión. En línea con el crecimiento y las adquisiciones de la empresa, estas estrategias empezaron a sustituir esa visión y comenzaron a complementarse con planes mucho más detallados. A medida que se amplió la oferta de la compañía, estos planes detallados comenzaron a convertirse en el principal instrumento de orientación de la compañía. En otras palabras, HMS pasó por tres fases: desde una fase de "Establecimiento de Mercado" (con una visión como su directriz primaria), a una fase de "Desarrollo de Mercado" (con estrategias como su directriz primaria), y finalmente a una fase de "Madurez de Mercado" (con planos detallados como su directriz primaria). Al hacerlo, su visión se volvió menos desafiante/motivadora para los empleados de HMS. Se utilizó un enfoque de investigación-acción influenciado por la teoría

fundamentada. Los resultados mostraron que las personas tuvieron una mentalidad diferente a lo largo de estas fases y el regreso es un desafío, porque mientras los empleados de HMS necesitan una visión, las visiones vienen sin planes detallados y no funcionarán a menos que se complementen con comunicaciones inspiradoras y apasionados campeones de la innovación que puedan empujar hacia adelante sin planes detallados.

Palabras clave: Necesidades de los empleados, campeones de innovación, planes, estrategias, visiones.

Introduction

HMS is a Swedish company and a global market leader in the industrial communication industry. In the past, HMS created an innovation that helped them become a market leader. Their technology allowed their customers to connect their devices into any of the many industrial networks that became widely used in the industry (Lysek, Danilovic & Liu 2016).

Initially, however, HMS was managed with a vision of a connected industry: that all automation devices would become intelligent devices, with a need to communicate and exchange data over one or several networks. In order to succeed, HMS wanted to include their core technology into everything, to be part of every industrial device that needed network connectivity. Gradually, however, that vision of a connected industry was complemented with strategies on how to reach that vision. Such strategies were still quite general in terms of goals under conditions of uncertainty, but they still pointed HMS in a specific direction. In line with the company's growth and acquisitions, these strategies started to replace their vision and they began to be supplemented with much more detailed plans. As the company's offer expanded, these detailed plans began to take over as the company's primary instrument of guidance.

In other words, HMS went through three phases: From a "Market Establishment" phase, to a "Market Development" phase, and finally to a "Market Maturity" phase (see *Table 1*). These three phases can also be related to the "revised technology adoption life cycle" model presented by Moore (2014), since the "Market Establishment" phase corresponds to the "Innovators" and "Early Adopters" phase, the "Market Development" phase corresponds to the "Early Majority" phase, and the "Market Maturity" phase corresponds to the "Late Majority" phase.

According to HMS' top management, a company's vision is mainly dominant during the "Market Establishment" phase. During the following phases, the importance of the company's vision slowly begins to fade away, but it does not totally disappear. It just loses its flare. During the "Market Establishment" phase, initial strategies and plans are also created, but they are vague and indistinct. It is first during the "Market Development" phase that strategies become more distinct, as they take over as the primary tool for guiding the company, taking the spotlight away from the company's vision. Then, during the "Market Maturity" phase, detailed plans become the primary tool for guiding the company, taking over the leading role after strategies. How long this third phase will last is uncertain. Usually, it is followed by a decline during the next phase. After all, "[e]very institution is vulnerable, no matter how great. No matter how much you've achieved, no matter how far you've gone, no matter how much power you've garnered, you are vulnerable to decline. There is no law of nature that the most powerful will inevitably remain at the top. Anyone can fall

and most eventually do" (Collins 2009, p. 8). A sign of a decline could be related to when a company's customers no-longer have a lot of requests for new features and add-ons. Alternative and/or disruptive solutions may then start to enter the market and replace a company's core offer. At this point, it might be already too late to turn around and start over again. The "Market Maturity" phase is therefore the ideal phase for investing in a new vision and new innovation opportunities. The challenge for HMS is to learn how to manage such a turnaround: how to move back from the third to the first phase.

Table 1: The three phases that HMS went through, as they went from vision to strategies and then to detailed plans. Source: HMS presentation from 2018.

Vision	**Strategy**	**Plan**
Market Establishment	Market Development	Market Maturity
During this phase companies have a strong "in-side-out" focus i.e. they are driven by their own vision and belief of what they want to accomplish, both from an offering point of view but also from a position point of view. They listen to the market and converts input into their own words and visions.	During this phase companies have tested their ideas and got a confirmation that they are on the right track. Now it's time to listen to the market and improve/fine-tune the offer to fit customer's needs. Good balance of "in-side-out" and "out-side-in" focus is the key to success.	During this phase the market has reach a mature state with a growing business and customer base – it's time to harvest. The exotic initial offer might be seen more as a standard or even as a commodity. Focus is on keeping the offer fresh and attractive with a strong value, creating an "out-side-in" focus.
Ahrens (2003) – don't develop what the customer wants, develop what they don't know they need.	Ahrens (2003) – Put your ear to the ground and listen with passion to what the market has to say. Put new glasses on the customer.	Ahrens (2003) – Grow the product flower. Apply the sales cannon (aim, load, and fire).

However, in order to explain how and why HMS went through this transition: from a vision to strategies and then to detailed plans, we need to start by explaining what these concepts actually mean to HMS. HMS defines a "vision" as the answer to the question "Where do we want to go?", "How does the market look like?", "How does it feel, smell and taste?". A "vision" should be something almost unreachable, like reaching for the stars, but at the same time, it provides both direction and inspiration for the company and its employees. HMS' first vision was to put their core technology, their innovation, into every industrial device, which they have not yet accomplished to this day, but that does not really matter. It only shows that visions, just like stars, are supposed to be unreachable, but trying to reach them nonetheless is what inspires people. HMS defines a "strategy" as the answer to the question "How do we get there?". The strategies that HMS developed were to help HMS fulfill their vision. HMS also defines a "plan" as the answer to the question "How do we get the most out of being here?" Plans are therefore not introduced until much later, when strategies have almost been fulfilled.

Thus, since visions are fundamental in motivating employees and moving companies in the direction the want to go, the purpose of this study was to explore the expressed needs of

HMS' employees regarding innovation, and to discover whether empowering HMS' vision could fulfill those needs, especially now that HMS is in the "Market Maturity" phase where people mainly focus on detailed plans. The purpose was also to explore what challenges HMS' employees may face if they want to put a vision back into focus again.

Method

This study used an action research approach (McNiff 2013), influenced by grounded theory (Holton & Walsh 2017; Lysek 2016; Glaser 1998; Glaser 1978).

Four full-day workshops were performed at HMS between 2015 and 2016, including a series of interviews with managers and employees. These workshops involved 34 HMS participants. The first workshop involved people from the software department. The second workshop involved people from the marketing and sales department. The third involved people from the hardware department, and the fourth involved people from the production and supply department. Each workshop was divided into three topics: 1) "What defines an innovative company" that is not hindered by barriers to innovation, 2) "What are HMS' barriers to innovation", and 3) "What solutions can we propose to solve HMS' barriers to innovation".

This case study (Dul & Hak 2008) was performed with knowledgeable individuals from HMS, including the third author, Jörgen Palmhager, who was involved in the growth and development of the company from 1992 and still is to the present day.

The 34 participants that were part of these workshops all helped to code their own data into different categories in order to involve the participant in the analysis process. However, of key concern was to allow the participants to reflect on their own interpretation, on their own needs, and to express those needs into the form of different sub-categories. The four workshops together yielded 380 aspects from the three topics of discussion, which were grouped by the 34 participants into 65 sub-categories. Because these 65 sub-categories originated from four different workshops performed at four different dates, and people often come up with similar categories, many of them were overlapping. Therefore, they were grouped once more into five main abstract concepts that captured and explained the needs of these 34 participants.

Table 2: The grouping of employee aspects into five main abstract concepts.

380 aspects	Grouped into 65 sub-categories	Grouped into five main abstract concepts
380 aspects (items) on innovation	Being hungry to win business	1. Inspiration
	Challenging ourselves	2. Exhilaration
	Having a shared vision	3. Direction
	Improving contact with customers	4. Cohesion
	Increasing knowledge and competence	5. Education
	…	

The results and the five main abstract concepts were later saturated by adding an additional 45 interviews corresponding to 160 A4-interview pages, plus another 113 e-mail pages, to

the data analysis. Finally, in order to include another perspective from a knowledgeable informant to the analysis, Jörgen Palmhager, the CTO of HMS, was asked to interpret the workshop results and compare them with the company's agenda for growth and innovation. Jörgen was therefore closely involved in the development of the three phases (see *Table 1*) and in interpreting the results of the study. Thus, without Jörgen's involvement, the three phases would not have emerged. Without Jörgen's involvement, a connection between HMS' three phases and the five main categories would not have been made. The existing knowledge from the literature about the value of visions was also of key importance in the interpretation and understanding of how HMS' vision could help (as a first step) in fulfilling the needs of HMS' employees.

Eisenhardt and Graebner (2007) argue however, that qualitative case studies require to have certain aspects of their study explained. Thus, while a lot of research exists around the importance of visions for innovation and people motivation, we chose a theory-building study using action research inspired by grounded theory for three reasons, 1) to improve our knowledge about how to work with innovation in a company context, 2) to identify what challenges to innovation HMS' employees in Halmstad, Sweden, are facing, and 3) to discuss and suggest certain solutions to overcome these challenges. Without such an approach, we would never have discovered these challenges, nor would we have discovered that it is not that simple as to just introduce a new vision to spark a passion for innovation in people. The three phases that emerged during this study showed us the importance of understanding the context of each phase, the dynamics of going back and forth between the three phases, and what challenges such a transition entail.

Analysis

This study was based on data that was collected and analysed during four full-day workshops with 34 participants (HMS employees from Halmstad, Sweden) between 2015 and 2016. The workshop participants were part of generating the data themselves and categorised them into 65 sub-categories. These 65 sub-categories were then conceptualized (Glaser 2011) into five main categories, explaining the main needs of these 34 participants. While the four workshops were focusing around the topic of innovation barriers, what emerged was not affected by such preconceptions (Glaser 2013). What emerged were five main abstract concepts that explained the needs of these 34 participants when it comes to innovation. These five main concepts were: inspiration, exhilaration, direction, cohesion and education.

These five main concepts are related to each other in different ways. Inspiration belongs to the causal-consequence model and affects exhilaration. Inspiration also belongs to the interactive family together with both direction and cohesion respectively. Cohesion also belongs to the causal-consequence model and affects direction, and it belongs to the interactive family together with education. Education belongs to the causal-consequence model and affects both exhilaration and direction respectively. Last but not least, direction also belongs to the causal-consequence model, and affects exhilaration.

In addition to that, inspiration could also be seen as a concept that belongs to extrinsic motivation, while exhilaration could be seen as a concept that belongs to intrinsic motiva-

tion (Van Yperen, Wortler, & de Jonge 2016; Dysvik & Kuvaas 2013; Tremblay et al. 2009; Sansone & Harackiewicz 2000).

Self-determination theory (SDT), which focuses on three fundamental psychological needs, can also be related to some of these concepts. SDT focuses on three needs: competence, autonomy and relatedness. "People are most fulfilled in their lives when they are able to satisfy these fundamental needs. Competence motivation reflects a human need to master new challenges and to perfect skills. The need for autonomy represents an attempt to achieve greater freedom and regulation by the self, rather than by external forces. It leads to greater self-integration, feelings of personal control and self-actualization. The third basic need, relatedness, refers to the self's desire to form meaningful bonds with others. The importance of self-determination theory's three basic needs has been strongly supported by research" (Holt et al. 2012, p. 404). Competence relates to "exhilaration", "direction" and "education". Autonomy relates to "inspiration", "exhilaration", and partly to "direction". Relatedness relates to "cohesion" and partly with "direction".

The focus of the five concepts that emerged in this study, is however on the importance of having a clear vision that motivates employees and the importance of the top management's help and support in expressing that vision. After all, it is "important for the development team to have a clear and stable vision to guide them" (Tidd & Bessant 2013, p. 417). Not to mention that a vision is also important for radical innovation (Tidd & Bessant 2013).

Inspiration: The need to be inspired and motivated

> "We want our leaders to provide us with a clear vision. We like when our leaders are hungry to win business and have a winning mindset. We like when we challenge ourselves. We want to be more on our toes. We want to know what our customers need besides what they say they want. We want to collaborate with external partners and other people outside the company's boundaries in search for innovation. We want to be encouraged to innovate and to be awarded for our efforts."

The first category that emerged from the analysis was "inspiration". The category emerged from grouping 121 out of a total 380 aspects that were generated by HMS' employees during the four different workshops.

Definition: Inspiration concerns inspiring people. It concerns a) providing people with a vision that will inspire and motivate them, as well as inspiring and motivating people by b) being confident and driven to win businesses, c) giving people incentives and rewarding them for their efforts, d) allowing people to be inspired by new market trends and new customer needs, e) collaborating with external partners and other organisations, and f) involving people in innovative activities.

HMS' employees stated that they do not see how HMS' vision is motivating or challenging in relation to the business of their department. But what is the underlying reason behind them wanting to have a clear vision, or even an innovation vision, to follow? Behind wanting more clearly communicated goals of where the company is going and what is ok to invest in? Behind working with long-term goals? Behind wanting to hold customer meetings that are not sales related, and increase their understanding of new technologies, new market trends, and new customer needs? Behind wanting to see that their leaders are hungry to win new businesses? Behind wanting to be offered incentives for being innovative, and

awarded for such efforts? But also, behind wanting to be part of collaborations with external partners, such as customers and universities, to learn how other organisations perform innovation-related activities?

One possible underlying reason is that having clear goals, learning about new market trends and new customer needs, as well as being provided with incentives and rewarded for working with innovation, all these things are inspiring and motivating. After all, learning from customers and capturing new opportunities that are not necessarily related to short-term profits, are both inspiring and motivating to most employees. Most employees perform the same or similar work every day, but these other activities offer them something new, something different. How can it not be inspiring and motivating? But not only that, to see their leaders move in exciting new directions is also very inspiring and motivating. In other words, people want to be inspired.

A new challenging vision could provide HMS' employees with both. "Possibly the most significant benefit of a clear vision statement is it can be motivating and inspiring. When an individual understands and aligns with the core values and vision of the organisation, they are able to readily commit to, and engage in, the organisation's efforts. Engaged and inspired personnel can go a long way in helping the organisation achieve its mission and goals." (Girdler). Thus, when wanting to inspire and motivate people, making a vision more challenging could be a good start.

Exhilaration: The need to be exhilarated and excited

> "We have it a bit too good overall, and we want a little more urgency. We want to have a 'we can do this'-attitude. We want to try new things that are groundbreaking. We also want to lessen our heavy backpack and we want to work on product improvements."

The second category that emerged from the analysis was "exhilaration". The category emerged from grouping 102 out of a total 380 aspects that were generated by HMS' employees during the four different workshops.

Definition: Exhilaration concerns what work activities people find exciting and motivating. What activities they feel they can perform with excitement and develop a feeling of passion for. It concerns a) being alert and jump on new opportunities, b) being confident in one self and showing it, c) being fearless and trying out new things, d) allowing people to do improvements on a daily basis, and e) the opposite of something exciting, namely having a large workload.

HMS' employees stated that they, as a company, no longer connect to all industrial networks, but only to the largest few, when connecting to all networks was their fundamental idea from the beginning. But what is the underlying reason behind them wanting to connect to all networks, and not those that are most important and most profitable? Behind wanting to be more alert and jump on new opportunities? Behind not being satisfied with what they have already achieved and wanting to focus on things that are innovative? Behind wanting to see that their leaders have a "we can do it"-attitude, and the courage to trust their gut and try out new things? Behind being fearless, dauntless, and prone to risk-taking. Behind wanting to try out new ideas, technologies and solutions during day-to-day projects? Behind wanting to perform improvements on a weekly basis to make their jobs easier in the future, and behind wanting to perform more innovation workshops?

One possible underlying reason is their need for exhilaration. HMS' employees want to make their day-to-day work more exciting. After all, who does not want to make their work more exciting? Learning through experimenting with new technologies, and trying out new things that are not necessarily related to short-term profits, are both exciting and motivating to most engineers. A new corporate vision could help, since visions help people discover new opportunities that are exciting, but the fact remains, employees need excitement from time to time. Thus, updating a company's vision could be a good start that could lead to excitement in the future.

Direction: The need to be supported and guided

> "We need more support systems. We need a working innovation process. We need horizontal process owners that help across departments. We need a holistic view and focus. We need to define what innovation is. We need to specify goals and following up on them. We need to set clearer areas of responsibility, e.g. who is the process owner for change processes? We need a better understanding of what a minimum viable product is. We need to invest time and resources into innovation. We need to find new areas for innovation. We need to set aside time for idea generation."

The third category that emerged from the analysis was "direction". The category emerged from grouping 59 out of a total 380 aspects that were generated by HMS' employees during the four different workshops.

Definition: Direction concerns helping people move forward. Some people know how to keep in line with an organisation's agenda, but many people need more help on their way. One way of doing that is to be clearer that inventions do not necessarily lead to innovations and that many times an old technology, combined or presented in a new way, can create new customer value.

Sometimes people try to find their own path. If they manage to get away with it and it leads to innovation, then more power to them. However, many times people simply cannot find the path that can move them forward, because when they discover something, they realise, or they are told, that it is not in line with the organisation's agenda, and as a consequence, they will not find the support they need to move forward. In such a situation, it might be the only option to request help from the organisation. Direction therefore concerns a) providing people with a vision that will guide them in their work and help them understand the direction of the organization concerning innovation and what expectations the organisation has of them. It concerns b) helping people to manage confusion, c) helping people by providing a clear focus, and d) managing time properly.

HMS' employees discussed different things during the four workshops, including what would be their next "little thing", instead of their next "big thing"? They also argued that they need help with clearer "high-level" objectives, like a challenging and motivating vision to follow, and setting aside time for innovation. However, what is their underlying reason behind these things? Behind wanting a clearer roadmap and having clearer objectives? Behind managing the sub-optimisation and having departmental objectives rather than holistic objectives? Behind complaining that they do not understand how their own work is related to and what impact it has on the company's goals and visions? Behind having unclear responsibilities, who is responsible for what? Behind arguing that they need to clarify what innovation means, in order to lower the bar on innovation, to defuse it, and invite everyone to col-

laborate to create innovation? Behind wondering if everyone has the same view on what innovation really is, and how HMS wants innovation to be? Behind arguing that they need a common vision on what creates value and where they are heading? Behind needing a clear process for innovation management, that is supported by the top management, why, how, and what? Behind needing to introduce corporate innovation goals, for products, processes, and business models? Behind needing clearer and more challenging goals set by the management? Behind the need to get all people on the same path so that everyone knows their position and what they are supposed to do? Behind the need to have clearer areas of responsibility? Behind the need to specify clearer expectations for different types of products or business areas, where in some cases the company wants to see innovation happen, and in other cases they just want to improve the efficiency by optimisation? Behind arguing that they lack a policy, an official statement, on how to work on innovation and take ideas forward? Behind arguing that they do not know how ideas are selected and commercialised? Behind arguing that they are lacking an innovation group that helps out with innovations, with the right people to take innovation decisions and managing innovation processes? Behind wanting to have more support systems and getting help with removing the technology focus in the innovation process, and instead focusing on business models.

One possible underlying reason is their need for direction in the form of a more challenging vision. HMS' employees are very competent, but each of them is just a small piece in a larger puzzle, and they need help from other puzzle pieces to create the whole thing. Some people may be able to do it on their own, but most people need help from other people. That is why they ask, 'how do we define innovation and how should we innovate?'. They do not know, and they help. They also do not know what expectations the company has of them when it comes to innovation, and how to fulfill them. In this case, innovation is not just a matter of knowing how to go through the innovation process, but also about getting support on the way, because without support, moving forward becomes challenging. HMS' employees ask for guidance, in order to align themselves with HMS' agenda and their expectations. Innovative companies rely on both bottom-up and top-down driven innovation processes, that both co-exist together (Gaynor 2013b, Gaynor 2013a, Nonaka 1994). After all, companies can be seen as "social groups characterised by goal-seeking behaviour, so even informal social processes such as bottom-up innovation must be guided" (Sundbo 2001, p. 91).

A new corporate vision could help guide HMS' employees in what to do and in what direction the company is moving. It starts with a clear vision that acts as a compass, and then in time moves towards strategies and plans. But when one vision has been worn out, a new one needs to take its place, especially when the company is standing in front of new possibilities like the industrial internet of things (IIo). It is difficult to know what the company expects of that. "A solid vision statement acts as a guide for employee actions and decision making. For example, if there is a decision to be made to undertake a project, or how to take action on a task: simply stop and ask, "Is what I am doing consistent with our organisation's vision statement?" If it is, great, move forward. If not, or if there is any doubt, now is the time to pause, evaluate, and if need be, align the action or decision with the vision statement; or forgo it. The vision statement will provide the guidance employees need to make the right decisions." (Girdler).

HMS' employees also argued that they want time for innovation, and not have all their time used up on daily work. They want HMS to set aside time for those who have ideas which they want to try out. They want synchronised control of plans and visions to free up time for spontaneous innovation. However, if HMS would give their employees time, what would they use it for? In 2013, HMS had a programme going called "My Own Project" where people were allowed to spend one Friday per month on doing any project they wanted. After one year, nothing came out of this programme that could be commercialised, because people were not guided by any vision.

Cohesion: The need to be involved and feel belonged

> "We want to improve information sharing and participation internally between departments. We want to improve internal communication and internal collaboration between departments, as well as spreading and sharing more information with each other."

The fourth category that emerged from the analysis was "cohesion". The category emerged from grouping 57 out of a total 380 aspects that were generated by HMS' employees during the four different workshops.

Definition: Cohesion concerns improving the cohesion within an organisation. It concerns a) increasing co-operation between people and allowing them to work more together, as well as b) increasing transparency and communication, especially across departments, and c) involving people more often to make them feel more part of what is happening in the organisation.

According to HMS' management, this is a challenge that concerns all growing companies. As companies grow, all employees are no longer involved in everything, and a new challenging vision that could motivate people on a department level, could make them feel more involved.

HMS' employees brought up many matters that concerned them, from increasing cross-department communication to seeing managers "walk the plant floor" more often (Peters & Waterman Jr. 2015; Peters & Austin 1986). But what is the underlying reason behind them wanting more co-operation between departments? Behind increasing exchange, by working some time in other departments, and working more together? Behind suggesting spontaneous meetings? Behind wanting to know more about what other people are doing? Behind wanting to share problems within and across departments? Behind wanting to have more activities between departments, like kick-offs, where people are "forced" to interact with each other and spend more time together? Behind wanting to share more top-down and bottom-up information, or behind wanting more transparency and increasing communication, especially across departments?

One possible underlying reason is their need for cohesion. HMS' employees want to increase the interaction between each other, to work more closely together. The only time most of them interact across departments is during after work parties, and even then, not all people participate. They want to be more involved in what other people are doing. They want more 'open doors' between departments. They want more freedom with responsibility. They want to increase their feeling of belongingness, to feel that they are one company, working together for a common goal.

A new corporate vision however, could help accomplish that, and increase their need for cohesion. People who have a common vision, struggle together to fulfill a common goal. A clear vision has a strong cohesive impact on people and binds them together. For example, a "clear vision statement acts as a unifying force, and has a positive impact on organisational effectiveness. When personnel understand and buy-in to the organisation's vision statement, it brings them together. It focuses and aligns efforts so everyone is working towards the same understood goal" (Girdler). In addition to that, cohesion through a challenging vision can be very inspiring and motivating.

Education: The need to be educated and informed

> "We want to learn more about innovation. We want to learn more about customers and customer needs. We want to learn more about how our products are used. We want to learn more about how other companies work with innovation and innovation processes. We want to increase our training, knowledge and competence. We want to deepen ourselves in expert knowledge, and we want to increase our understanding of what a 'minimum viable product' should be for our industry."

The fifth and final category that emerged from the analysis was "Education". The category emerged from grouping 41 out of a total 380 aspects that were generated by HMS' employees during the four different workshops.

Definition: Education concerns a) gaining more knowledge through education and training, from both courses and customer or company visits. From networking, workshops and various forms of collaboration. It concerns b) gaining more knowledge from testing out new technologies and develop leading edge competence, c) gaining more knowledge from learning about value creation, customer needs and market trends, and d) gaining more knowledge from learning about how their own products are used by their customers.

HMS' employees also brought up issues concerning gaining knowledge from both internal and external sources. But what is the underlying reason behind them wanting to go on more courses, exhibitions, seminars, and meetings with customers? Behind wanting to learn more about customer value creation and market trends? Behind wanting to learn more about customer needs and understanding customers better? Behind wanting to learn more about how their products are used? Behind wanting to widen their skills and competence? Behind wanting more internal training? Behind wanting to gain more knowledge, theory and experience? Behind wanting to take courses in innovation? Behind wanting to gain interdisciplinary knowledge and further education through networking? Behind wanting to benchmark other companies and external partners? Behind wanting to increase the exchange between departments through workshops, exchange session, etc.? Behind wanting to go on more company visits and exhibition visits, and behind wanting to learn new technologies and develop leading edge competence?

One possible underlying reason for their need to gain knowledge in to get a better understanding of their company and its ecosystem. Such knowledge is also exciting. More knowledge about how the company works increases the feeling of cohesion. It also opens up for new opportunities, which in turn is inspiring. HMS' employees want to increase their knowledge to be more involved, to feel more important to the company, and to increase their own internal motivation and self-esteem. After all, understanding customer needs

helps in fulfilling their needs, and in so doing, employees can do more good for the company and feel that they are fulfilling the company's goals and vision.

Awakening champions with visions

> "Innovation is essentially about learning and change and is often disruptive, risky and costly. … [I]t is not surprising that individuals and organizations develop many different cognitive, behavioural and structural ways of reinforcing the status quo. Innovation requires energy to overcome this inertia, and the determination to change the order of things. … [Take for example] the 'not-invented-here' problem … We have become used to seeing core competencies as a source of strength within the organization, but the downside is that the mindset which is being highly competent in doing certain things can also block the organisation from changing its mind. Thus ideas which challenge the status quo face an uphill struggle to gain acceptance; innovation requires considerable energy and enthusiasm to overcome barriers of this kind. … 'Top management commitment' is a common prescription associated with successful innovation; the challenge is to translate the concept into reality by finding mechanisms which demonstrate and reinforce the sense of management involvement, commitment, enthusiasm and support. In particular, there needs to be long-term commitment to major projects, as opposed to seeking short-term returns. … Changing mindset and refocusing organisational energies requires the articulation of a new vision, and there are many cases where this kind of leadership is credited with starting or turning around organizations" (Tidd & Bessant 2013, pp. 109-110).

HMS' management has been essential in the past in leading HMS towards innovation. The development of HMS' NP40 microprocessor, is an example of one of their market innovations. The top management's commitment and their vision with the NP40 turned this microprocessor into a commercial success. That is why HMS' management values marketing or positioning innovations and business model innovations more than inventing new technologies. Creating commercial value in their opinion does not necessarily require inventing ground-breaking technology. Just because something is not a new technology, or it is not-invented-here, does not mean it cannot be packaged in an innovative way and turned into a commercial success. But to do so, it has to be guided by a vision.

The importance of the top management's involvement in the innovation process is stated above by Tidd and Bessant (2013). The same can be said by the five main concepts that emerged during this study, which also show how important the top management's involvement is related to fulfilling the needs of HMS' employees. After all, managers can inspire and motivate employees through a challenging vision. They can provide employees with exciting tasks, they can provide employees with the help and guidance that they require, to create a feeling of belongingness through collective inclusioning (Lysek 2016), and help employees increase their competence.

"People, when they complain, are actually showing you that they're engaged, oddly enough. … The challenge is to take those complaints and those glimmers of pride and enthusiasm and actually hear them and turn them into suggestions for change" (Spiro 2010). Thus, the first step to spark new passion into HMS' employees could be by empowering HMS' vision and directing it towards new opportunities.

Is giving employees more time enough for innovation?

HMS' employees argued that they need more time to work on innovations. "According to research from Innovation Leader, 65 percent of companies say that their number one barrier to getting innovation is the lack of innovative behavior due to a risk-avoidant culture. … But when it comes to incentives for 'intrapreneurs': people employed inside of companies-money isn't the biggest carrot for promoting innovation. … The No. 1 employee motivator for innovation is more time, not money" (Kaplan 2018).

However, when HMS started a programme in 2013 named "My Own Project", and gave employees time to do whatever they wanted, after a year, no employee created anything that HMS considered could be commercialised in the future. One reason for that could be that people were not guided by a challenging and motivating vision during that programme, and that they used this project as a means for gaining new knowledge, not necessarily related to commercially valuable outcomes.

Thus, it is not just about giving people time, because even if time is given, people may not want to use this time to create something that is in line with what the company wants. They may choose to develop something they want, and not necessarily what can be commercialised. They may also not even know how to develop something that can be commercialized and turned into a marketing innovation. People need guidance, and a new challenging vision can give them the direction they need. Not to mention that HMS also has expectations. Without guidance, those expectations will not be easily fulfilled, and not fulfilling expectations takes a toll, no matter how important one thinks the work is. When expectations are not fulfilled, the work people do will not be appreciated, and no one likes doing a lot of work and then see how unsatisfied others are with it.

Thus, while people still had fun during "My Own Project", and it was important for their well-being, it didn't lead to fulfilling the company's expectations. Without a clear vision, people will most likely use that time on things that will not be in line with the company's expectations. Expectations however, are not easily defined or explained, but one way to do it is through a vision. In other words, "everything starts with a vision. No vision, no action, no results" (Devescovi 2014).

Innovation champions however, they do not need such programmes as "My Own Project", because they often create time to do what they believe they have to do. They don't wait for permission to do something (Jefferson, Spann, & Spann 2016; Howell & Boies 2004; Hauschildt 2003).

Can anyone become an innovation champion?

Innovation needs innovation champions. However, innovation champions are those who can create and work with visions and/or strategies without the direct need of detailed plans.

Can anyone become an innovation champion, and can everyone see the potential in a marketing innovation among employees who are engineers? When HMS started to develop their NP40, some engineers at HMS in Halmstad, Sweden, did not see the potential with the new microprocessor, because it was not new from a technological perspective. Some people were against it and did not change their minds until it became a commercial success. But other people, who could be seen as innovation champions, saw the potential in the NP40 as

a marketing innovation and pushed it through despite having others arguing against it. Innovation often requires pushing through, by having passion and following visions, despite having people who go against what you believe in, because innovation is often met with inertia and innovation barriers (Tidd & Bessant 2013).

Nevertheless, even if only a few innovation champions emerge at specific occasions, such champions can emerge from anywhere. "In the past, I have made no secret of my disdain for Chef Gusteau's famous motto, 'Anyone can cook.' But I realize, only now do I truly understand what he meant. Not everyone can become a great artist; but a great artist *can* come from *anywhere*" (Ratatouille 2007).

However, pushing through despite having people who are against your vision is the key to success. Nokia is an example of that. It took Nokia 17 years, to make a breakthrough in electronics, and during this time, many people within the organisation were against it. From "the late 1950s until the mid-1970s, Nokia's electronics was a cash trap, but years of investment, effort, and intense internal controversy ultimately turned the unit into a success. … As long as electronics failed to turn a profit, Nokia's other units perceived the unit as an expensive burden ... It was only in 1977, when most of the Nokia Group suffered from a cyclical downturn, that the electronics division began to generate cash" (Steinbock 2001, pp. 45-46).

On the other hand, innovation champions cannot work alone. They need support from other people. "Within the framework of the strategic innovation theory, the single actor is not considered as an individual (as for example in classic entrepreneur theory). Individuals participate in a social interaction structure and thus operate in different kinds of groups. The interesting thing is not the individual actor, but the interaction structure. Employees do not act in isolation; their actions and ideas are generated in a social structure where they need to interact with other people. The formalised innovation department is not an individual, and in most cases not even a hierarchical structure which speaks 'with one voice'; it is a social system with different interests, conflicts and so on. … The interaction between management and employees is also important in the development of innovations" (Sundbo 2001, p. 93).

From vision to strategy to plan and back again

Tidd and Bessant argue that "[t]here are many examples of firms which have developed abilities for managing part of the innovation process, but which fail because of a lack of ability in others. For example, there are many with an acknowledged strength in R&D and the generation of technological innovation: but which lack the ability to relate these to the marketplace or to end-users. Others may lack the ability to link innovation to their business strategy" (Tidd & Bessant 2013, p. 86). A new clear vision however, could help make this link between innovation and the company's business strategy, and help employees see how innovation fits into HMS' growth strategy and what type innovations are most attractive to the company.

It needs however, to be pointed out, that HMS' management still sees a lot of potential in their current vision. They see it as much broader that what perhaps some other people do. But since HMS has already become a market leader, their existing vision may seem less motivating to HMS' employees. The question is, should HMS update their vision to make it more challenging, or is this a matter of explaining how HMS' management understands their vision to still be challenging?

Nevertheless, visions are powerful tools that can capture employees' imagination and direct them in a certain direction. They provide guidance and inspiration to employees. However, visions do not need to be static forever. They can be updated when needed, because from the employees' perspective, they can become obsolete.

Axis Communications AB is a Swedish manufacturer of network cameras for the physical security and video surveillance industries. In 2000, Axis' vision according to their annual report was "to increase the value of the network for all its users by enabling access to everything, from anywhere, any time". In 2005, they changed their vision to "Everything can communicate over intelligent networks" where Axis wanted to be "the driving force in bringing customers the full benefits of intelligent network video solutions". In 2012, they changed their vision again to "Innovating for a smarter, safer world", where the last vision goes beyond network cameras to security solutions.

What Axis is showing is that they are not only able to go from an "Market Establishment" phase mainly guided by a vision, to a "Market Development" phase mainly guided by strategies, and then to a "Market Maturity" phase mainly guided by detailed plans, but they are also able to introduce challenging visions and target new customer needs. Their different innovations and business areas that they have managed over the years show that they move back and forth between visions without strategies and plans, strategies without plans, and detailed plans.

HMS' journey from the "Market Establishment" phase to the "Market Maturity" phase also shows that their vision has not disappeared. It is still there. Going into the details, it shows that they went from being guided by a "vision", to having their "vision complemented by strategies", to having their "vision and strategies complemented by detailed plans", to still having their "vision, but having strategies replaced by detailed plans". In other words, what has disappeared are the strategies as HMS' employees at HMS in Halmstad, Sweden, now mainly follow detailed plans. Their vision is still there, and while HMS' management still relies on their vision, this vision has been mostly fulfilled in the eyes of HMS' employees. The challenge that the vision entailed, has been overcome to a large extent. While there is still much to do within the industrial communication industry, HMS' employees know today that HMS is a marker leader in their industry, that they are experts on industrial communication, and on connecting devices. All business however, become commodities in time, but so do visions as well. HMS' vision of connecting devices has been fulfilled to a large extent, and thus, this vision has diminished in importance in the eyes of HMS' employees. They do not see it as challenging anymore. Therefore, from an innovation perspective, HMS' vision needs to be made challenging once again. It needs to inspire people. The question is, should HMS' vision be updated, or should it be explained better? After all, HMS' management still see their vision as challenging. HMS' management knows however, that data is becoming more and more important in the industry, and therefore, their vision could be updated to capture this issue. Connecting devices does not say anything about the data. Maybe HMS' future vision could be to "empower the data value in connected devices"?

It is also crucial to remember that the transition through these three phases changes the mindset of people, and the company will not be the same as they were during the "Market Establishment" phase. As more and more people are employed, departments are formalized focusing on different specialisations (Mintzberg 1993). And when strategies are developed

for each department, they become distinguished from each other, and detailed plans push them even further apart. Such departments get used to working with detailed plans, while the vision diminishes over time, and the people within these departments may find it difficult to capture new opportunities based on new visions or unclear strategies where no detailed plans exist.

Conclusions

HMS' employees argue that they do not have a challenging and motivating vision anymore, and that they do not fully understand in what direction the company is heading. Industrial Internet of Things (IIoT) offers new opportunities, but it is also very unclear what those opportunities might be. Such unclear opportunities are sometimes more confusing than helping. Thus, HMS' employees wonder what happened to the vision which they had in the past, and they do not see how HMS' current vision relates to their daily work and activities or to new areas such as IIoT. While IIoT seems to be an interesting target area, which many companies today are exploring, trying to find a possible fit into this area for HMS is important. However, to do so, it may require updating or renewing HMS' current vision, because while their current vision is clear to HMS' top management, each of HMS' employees only see HMS from their existing and sometimes more narrow work position, while HMS' top management actually have a holistic view on HMS. Thus, HMS' employees do not have the possibility to see other aspects of

Tidd and Bessant argue that "[i]nnovation is a process, not a single event, and needs to be managed as such. The influences on the process can be manipulated to affect the outcome – that is, it can be managed. Most important, research highlights the concept of successful routines which are learned over time and through experience" (Tidd & Bessant 2013, p. 86). Tidd and Bessant also argue that one of the things which the innovation process needs is a clear vision. When it comes to leadership, Tidd and Bessant also stated that research performed by Rafferty and Griffin showed that vision and inspirational communication have a great effect on creativity and innovation. They defined "a vision as 'the expression of an idealized picture of the future based around organisational values', and inspirational communication as 'the expression of positive and encouraging messages about the organisation, and statements that build motivation and confidence'. They [also] found that the expression of a vision has a negative effect on followers' confidence, unless accompanied with inspirational communication" (Tidd & Bessant 2013, p. 114).

Thus, going back to a "Market Establishment" phase after a longer period within the "Market Maturity" phase, can be difficult, because employees within the "Market Maturity" phase have a different mindset than what is needed for the "Market Establishment" phase. Within the "Market Maturity" phase they rely on detailed plans that act as guidelines regarding what they should do, while the "Market Establishment" phase lack such guidelines. When a new challenging vision is introduced, strategies are fuzzy at best, and detailed plans do not yet exist. However, people are still able to express a need for a new vision, or the need to be inspired and motivated, the need to be excited, the need to be supported and guided, the need to be involved and to feel belongingness, and the need to be informed and educated. And while a

new vision can help with most of these things, being able to work with a vision that is based around vague strategies at best, and without detailed plans, requires a certain passion and mindset. Creating a new vison is a start, but as argued by Tidd and Bessant, it also requires communication. And it requires innovation champions with visions (Phillips 2010), who are passionate (Sloane), and able to interpret this vision and transform it from words into action.

Through this study, HMS' top management have come to realise that their existing vision, while still important to them, does not have the same effect on their employees as it did in the past. Their response was that they need to work with their vision more in the future. However, the question is, should HMS update their existing vision to make it more challenging for their employees or is it a matter of explaining how their existing vision still has much more to offer?

Nevertheless, HMS' employees also need to understand that a new challenging vision will come with ambiguous strategies at best, and without any detailed plans. That is how it has to be, and HMS' employees will have to learn to push forward despite of that. At HMS, employees often ask, "How should we innovate?", because they want detailed plans to guide them. However, a new challenging vision will not be accompanied with such plans and developing them will be part of the innovation process. What innovation needs are innovation champions: employees who are self-driven, and who follow visions with passion. But HMS cannot just sit back and wait for innovation champions to emerge. They need to make it possible for them to emerge, and a new vision could be an important ingredient to achieve that. After all, "champions don't automatically emerge. They emerge because history and numerous supports encourage them to, nurture them through trying times, celebrate their successes, and nurse them through occasional failures. But given the supports, the would-be champion population turns out to be enormous, certainly not limited to a handful of creative marvels" (Peters & Waterman Jr. 2015, p. 224). However, if successful, passionate innovation champions could be awakened, who are capable of following inspiring visions towards innovation.

Managerial implications

It is well known that visions are important for innovation. However, company visions have a life cycle, and old visions do not provide the same drive or inspiration as they may have done in the past. Employees are keen on seeing these changes while top managers do not. Thus, what is sometimes difficult to realise is that while a company still has its old vision in place, and while the company's top management still finds that vision important and relies on it, even visions become commodities, and in time, they can lose its power of inspiration to the company's employees, and their motivation for innovation. This happens when visions are complemented with strategies and strategies are replaced by detailed plans. After all, top managers have a more holistic view on what is doing on in the company, and how their old vision relates to everything that is going on in the company, compared to their employees who only see what is going on in front of them. Therefore, employees need a vision that is not only inspiring and motivating but also more informative. As well they need a vision that explains where they are heading as clearly as their top managers understand it. Thus, even visions need to be updated occasionally to inspire employees and show them new directions for the company.

Future research

Future studies could look into how other companies deal with the transition over the three phases that are explained in this article, especially when companies are in a mature market and need to introduce new challenging visions for capturing new opportunities. Future research could also compare these results with Chamberlain's theory on strategy (Chamberlain 2010).

References

Ahrens T. 2003. *Växa med framgång – tvåan vinner,* Malmö, Liber Ekonomi Kristianstads Boktryckeri AB.

Chamberlain G. P. 2010. *Understanding Strategy,* Charleston, CreateSpace Independent Publishing Platform.

Collins J. 2009. *How The Mighty Fall: And Why Some Companies Never Give In,* New York, HarperCollins Publishers Inc. DOI: doi.org/10.1080/10686967.2010.11918294

Devescovi P. 2014. *Why Lack of a Clear Vision May Lead to Failure?* Project Prosperity. Retrieved from https://www.projectprosperity.com/lack-clear-vision-may-lead-failure/

Dul J. & Hak T. 2008. *Case Study Methodology in Business Research,* Oxford, Butterworth-Heinemann (imprint of Elsevier). DOI: doi.org/10.1080/15228053.2008.10856137

Dysvik, A. & Kuvaas, B. 2013. Intrinsic and extrinsic motivation as predictors of work effort: The moderating role of achievement goals. *British Journal of Social Psychology,* 52**,** 412-430. DOI: doi.org/10.1111/j.2044-8309.2011.02090.x

Eisenhardt K. M. & Graebner M. E. 2007. Theory Building From Cases: Opportunities and Challenges. *Academy of Mangement Journal,* 50**,** 25-32. DOI: doi.org/10.5465/amj.2007.24160888

Gaynor G. H. 2013a. Innovation: Top Down or Bottom Up. *IEEE Engineering Management Review,* 41**,** 5-6.

Gaynor G. H. 2013b. The Challenges of Bottom-Up Innovation. *IEEE Engineering Management Review,* 41**,** 5-7.

Girdler M. 3 BIG Benefits Of A Clear Vision Statement. Available from: http://www.cornerstonedynamics.com/3-big-benefits-of-a-clear-vision-statement/

Glaser B. G. 1978. *Theoretical Sensitivity – Advances in the Methodology of Grounded Theory,* Mill Valley, San Francisco, Sociology Press.

Glaser B. G. 1998. *Doing Grounded Theory: Issues and Discussions,* Mill Valley, Sociology Press.

Glaser B. G. 2011. *Getting Out of the Data: Grounded Theory Conceptualization,* Mill Valley, San Francisco, Sociology Press.

Glaser B. G. 2013. *No Preconceptions: The Grounded Theory Dictum,* Mill Valley, Sociology Press.

Hauschildt J. 2003. Promotors and Champions in Innovations: Development of a Research Paradigm. *In:* Shavinina L. V. (ed.) *The International Handbook on Innovation.* Oxford: Elsevier Science Ltd. DOI: doi.org/10.1016/b978-008044198-6/50055-3

Holton J. A. & Walsh I. 2017. *Classic Grounded Theory: Applications With Qualitative & Quantitative Data,* Los Angeles, SAGE Publications, Inc.

Howell J. M. & Boies K. 2004. Champions of technological innovation: The influence of contextual knowledge, role orientation, idea generation, and idea promotion on champion emergence. *The Leadership Quarterly,* 15**,** 123-143. DOI: doi.org/10.1016/j.leaqua.2003.12.008

Jefferson S., Spann A. & Spann J. 2016. *Deep dive: How the innovation champions program works at telecom giant Vodafone*. Innovation Leader. Retrieved from https://www.innovationleader.com/vodafone-innovation-champions/

Kaplan S. 2018. *The No. 1 Thing That Keeps Your Best Employees Motivated? It's Not What You Think*. Inc. Retrieved from https://www.inc.com/soren-kaplan/the-no-1-way-to-motivate-your-best-employees-no-its-not-more-money.html

Lysek M. 2016. Collective Inclusioning: A Grounded Theory of a Bottom-Up Approach to Innovation and Leading. *The Grounded Theory Review,* 15**,** 26-44.

Lysek M., Danilovic M. & Liu J. L. 2016. In Search of Innovation: Exploring the Dynamics of Innovation. *International Journal of Social, Behavioral, Educational, Economic, Business and Industrial Engineering,* 10**,** 217-231.

McNiff J. 2013. *Action Research: Principles and practice,* New York, Routledge.

Mintzberg H. 1993. *Structures in fives: Designing effective organizations,* Harlow, Prentice-Hall Inc.

Moore G. A. 2014. *Crossing the Chasm - Marketing and Selling Disruptive Products to Mainstream Customers,* New York, HarperCollins Publishers.

Nonaka I. 1994. A Dynamic Theory of Organizational Knowledge Creation. *Organization Science,* 5**,** 14-37. DOI: doi.org/10.1287/orsc.5.1.14

Peters T. J. & Austin N. K. 1986. *A Passion for Excellence: The Leadership Difference,* New York, Time Warner Book Group. DOI: doi.org/10.2307/2392676

Peters T. J. & Waterman Jr. R. H. 2015. *In Search of Excellence: Lessons from America's Best-Run Companies,* London, Profile Books Ltd. DOI: doi.org/10.2307/2393015

Phillips J. 2010. Vision and Passion: All you really need for innovation success. Available from: http://innovateonpurpose.blogspot.com/2010/05/vision-and-passion-all-you-really-need.html

Ratatouille (2007) *Quotes*. IMDb.com. Retrieved from http://www.imdb.com/title/tt0382932/quotes

Sansone C. & Harackiewicz J. M. 2000. *Intrinsic and Extrinsic Motivation: The Search for Optimal Motivation and Performance,* London, Academic Press.

Sloane P. *The Innovative Leader Needs Passion*. InnovationManagement.se. Retrieved from http://www.innovationmanagement.se/imtool-articles/the-innovative-leader-needs-passion/

Spiro J. 2010. *How to Get Employees Excited About Your Business Vision*. Inc. Retrieved from https://www.inc.com/guides/2010/08/how-to-get-employees-excited-about-your-business-vision.html

Steinbock D. 2001. *The Nokia Revolution: The Story of an Extraordinary Company That Transformed an Industry,* New York, Amacom. DOI: doi.org/10.2307/20050350

Sundbo J. 2001. *The Strategic Management of Innovation: A Sociological and Economic Theory,* Northampton, Edward Elgar Publishing, Inc.

Tidd J. & Bessant J. 2013. *Managing Innovation: Integrating Technological, Market and Organizational Change,* Chichester, John Wiley & Sons Ltd. DOI: doi.org/10.1016/s0166-4972(98)80033-3

Tremblay M. A., Blanchard C. M., Taylor S., Pelletier L. G. & Villeneuve M. 2009. Work Extrinsic and Intrinsic Motivation Scale: Its Value for Organizational Psychology Research. *Canadian Journal of Behavioural Science,* 41**,** 213–226. DOI: doi.org/10.1037/a0015167

Van Yperen N. W., Wortler B. & de Jonge K. M. M. 2016. Workers' intrinsic work motivation when job demands are high: The role of need for autonomy and perceived opportunity for blended working. *Computers in Human Behavior,* 60**,** 179-184. DOI: doi.org/10.1016/j.chb.2016.02.068

About the Authors

Michal Lysek is a PhD. student in innovation sciences at the School of Business, Engineering and Science at Halmstad University, Sweden. Michal has performed studies based on action research as well as classic grounded theory. He will defend his dissertation in 2019. Michal also has a background in computer systems, electrical engineering, and psychology. He is currently employed by the company HMS Networks AB, in Halmstad, Sweden.

Jörgen Palmhager is the Chief Technology Officer and the Chief Operating Officer at HMS Networks AB. He served as the Development Manager of HMS up until 2006. Jörgen was employed by HMS in 1992 and has thus been involved in HMS' business from the beginning.

Mike Danilovic, PhD., is a Professor of Industrial Organisation with a focus on innovation and technology management, at the School of Business, Engineering and Science at Halmstad University, Sweden. Mike is also a Distinguished Overseas Professor, at the School of Business at Shanghai Dianji University, in Shanghai, China. Mike' research is about innovation and innovation-process, particularly in regard to high-tech companies and products such as mobile phones, cars and aircraft; and the collaboration between academia and industry.

Authors' addresses
Michal Lysek
HMS Industrial Networks AB
Stationsgatan 37, SE-302 50, Halmstad, Sweden
E-mail: mly@hms.se / michal.lysek@hh.se
Tel. +46 709 906 916

Jörgen Palmhager
HMS Industrial Networks AB
Stationsgatan 37, SE-302 50, Halmstad, Sweden
E-mail: jop@hms.se
Tel. +46 35 17 29 31

Mike Danilovic
Halmstad University
School of Business, Engineering and Science
PO Box 823, SE-301 18, Halmstad, Sweden
E-mail: mike.danilovic@hh.se
Tel. +46 35 16 71 17

Scientific Agendas and Work Tables. An action research initiative in La Plata, Ensenada and Berisso, Argentina

Horacio Bozzano and Tomás Canevari

Abstract
Scientific Agendas and *Permanent Work Tables:* two emerging concepts that summarise a position of science constructed over three decades of Participatory-Action-Research from CONICET and UNLP of Argentina. It is a science that, surpassing positions of status quo and allocating time for criticism, seeks to produce Theories of Transformation referring to possible territories. Two cases in progress, in an informal urbanisation and in an industrial and residential flood zone in La Plata, Ensenada and Berisso, Buenos Aires, Argentina, give meaning to two Agendas with their respective Tables: "Puente de Fierro Possible Territory" and "Territory, Industry and Environment". The objective is to execute a science that brings closer the wishes of people with public policies in cases of high exemplary and replicability. The work is organised in three parts: what science, what agendas, what praxis, and a conclusion.

Key words: transformation, science, scientific agendas, praxis, work tables

Agendas Científicas y Mesas de Trabajo. Una iniciativa de investigación acción en La Plata, Ensenada y Berisso, Argentina

Resumen
Agendas Científicas y *Mesas de Trabajo Permanentes*: dos conceptos emergentes que resumen una posición de la ciencia construida a lo largo de tres décadas de Investigación-Acción- Participativa desde CONICET y UNLP de Argentina. Se trata de una ciencia que, superando posiciones de statu quo y destinando tiempo a la crítica, procura producir Teorías de la Transformación referidas a territorios posibles. Dos casos en marcha, en una urbanización informal y en una zona industrial y residencial inundable en La Plata, Ensenada y Berisso, Buenos Aires, Argentina dan sentido a sendas Agendas con sus respectivas Mesas: "Puente de Fierro Territorio Posible" y "Territorio, Industria y Ambiente". El objetivo es ejecutar una ciencia que aproxime los deseos de la gente con las políticas públicas en casos de alta ejemplaridad y replicabilidad. El trabajo se organiza en tres partes -qué ciencia, qué agendas, qué praxis- y un cierre.

Palabras clave: agendas científicas – praxis – mesas de trabajo

Introduction

Scientific Agendas and *Permanent Work Tables*[1] constitute two emerging concepts which summarise a position of science built over three decades of Participatory-Action-Research from the National Council of Scientific and Technical Research (CONICET) and the National University of La Plata (UNLP) of Argentina. These concepts have been reinforced since 2013 with the initiative "La Plata with Territorial Intelligence" (http://territoriosposibles.fahce.unlp.edu.ar/) and have been consolidated since the 2014 PIO UNLP-CONICET Oriented Research Project called "Strategies for Territory Integral Management". The PIO was institutionally effected in 2016 in the OMLP Environmental Observatory La Plata belonging to UNLP, CONICET and CICPBA through two Scientific Agendas with their respective *Permanent Work Table*: "Puente de Fierro Territorio Posible" worked on an informal urbanisation and "Territory, Industry and Environment" on an industrial, residential, port and flood zone of La Plata, Ensenada and Berisso, Buenos Aires, Argentina. Research is conducted by means of an approach to science which goes beyond positions of *status quo* and which allows room for criticism and resistance, while, at the same time, seeking to put forth Theories of Transformation in relation to possible territories.

The objective is to carry out science in a way that brings the wishes of the people closer with public policies in cases which show a degree of high representativeness and replicability, particularly in Latin America, as well as in most damaged and degraded places across the five continents. We have detected about fifteen topics of high impact and replicability, these two items in the agenda, among them. The work is organised in three parts. In "what science", three readings are brought up which discuss the origins of science to a teleological present. In "what agendas", some etymologies and a brief history of the concept are exposed in order to propose a *Scientific Agenda* concept as a result of an over two decades long applied research. In "what praxis", a path is traveled between the praxis itself and the *Permanent Work Table*, going through a determined conception of methodology and applying a method "*Territori*" which has been in evolution as of two decades ago. The conclusions of the article opens perspectives for future research and introduce the question of power in *Scientific Agendas* and *Work Tables*.

1 What science

What is the meaning we give to Science? Our position towards Science recognises and seeks to incorporate into our daily work three readings, which are largely phases, moments or instances coinciding with its history, as well as positions regarding knowledge in the development of science itself in the face of a multidimensionality of events which have taken and take place in Humanity, the Planet and the Universe. These three readings can contribute to a greater degree of awareness in our positioning as scientists, especially considering

1 The concept of Work Table in Spanish is "Mesa de Trabajo" and it is connected in the sense of sitting around a table to work on problems and their possible solutions among people representing the community, science, politics, the world, business and other sectors. Throughout the text the concept is deepened further.

that we represent a very small proportion of human beings[2]. Thus, a first Reading, also a phase, that we call the ***origins of science,*** not pre-scientific though, refers to various processes of knowledge and knowledge construction, both theoretical and empirical in different peoples and cultures for more than two millennia. Consequently, we also enable the understanding and comprehension of science from its etymologies and meanings. A second reading, typical of the Western world, which we call ***paradigms***, differentiates between the *dominant scientific paradigm,* which emerges with the scientific revolution of the sixteenth century, and the *emerging scientific paradigm*, starting with Einstein, as well as an overlapping stage between both called the crisis of the dominant paradigm (de Sousa Santos 2009). A third reading of the Science, that we call ***teleological***, proposes the simultaneous existence of a *science of the status quo*, a *science of criticism and resistance* and a *science of transformation*, incorporating the accentuation of critical contexts for the future of humanity on our planet.

1.1 Phase of the origins of science

As shown below, many centuries before dictionaries existed, science existed. In Latin, *scientia* means knowledge. Between 1220 and 1250 ad *scientia* derives from *sciens*, and this word, in turn derives from *scire*, an active participle that means to know. In the fourteenth century, late Latin incorporates *scientificus* to refer to scientific matters (Corominas 1973: 169). It is worth mentioning that science is, to a large extent, both knowledge and know-how. This analysis proves insufficient insofar as the research is not expanded by delving into Chinese, Hindu, Arabic and other etymologies, in order to investigate what degrees of affinity there are between the histories of the meanings of the concept of Science.

Science is understood, comprehended, explained and interpreted from the meanings in its signification. In the case of our language, Spanish, it does not only refer to the "Set of knowledge obtained through systematically structured observation and reasoning and from which general principles and laws are deduced with predictive capacity and experimentally verifiable" (Royal Spanish Academy [RAE] 2014), but also referring to science as "knowledge or erudition" and science as "skill, mastery, body of knowledge in anything" (RAE 2014).

A brief review of an important body of knowledge developed among Chinese, Egyptians, Hindus, Greeks, Romans, Persians, Mayans, Incas, Arabs and other peoples allows us to affirm that the three current meanings of science in the Royal Spanish Academy to which we refer, to a large extent, were present for more than two millennia, that is, there were sets of knowledge with a greater or lesser degree of structuring, which represented knowledge and / or erudition, as well as skill and mastery. In an attempt to summarise, we could say that in the Greek world a more theoretical and philosophical knowledge production stands out, while among other peoples and cultures there was development of knowledge in preferably more empirical as well as in technical, scientific- technical and / or pre-scientific

2 In Argentina, for example, a country with 44.6 million inhabitants, after having increased the budget allocated to science and technology activities by 937% between 2003 and 2012 according to the Innovative Argentina 2020 Plan (Ministry of Science 2013), Researchers and research fellows represent around 0.1% of the population. That is the worldwide average of researchers per inhabitant, as can be seen from the report of the UNESCO Science Report (2015), which accounts for around 7.5 million scientists.

matters. Mathematics, astronomy, medicine, engineering and metallurgy, among others, were marking out in different centuries and different latitudes a spiral of knowledge, some of which was not known among peoples for several centuries. It is highly probable that, in a general balance, "the scientific genius of China" had had a greater relative development until the sixteenth century than those of other peoples and societies during this phase.[3]

1.2 Phase of the paradigms

In this section, our work is based on the research carried out by Boaventura de Sousa Santos (2009), for whom the model of rationality of the ***dominant paradigm*** "... that presides over modern science was constituted from the scientific revolution of the XVI century, and was developed in the following centuries basically in the domain of natural sciences. Although with some omens in the eighteenth century, it is only in the nineteenth century when this model of rationality extends to the emerging social sciences" (p. 21).

"As it was possible to discover the laws of nature, it would be equally possible to discover the laws of society." Thus, nineteenth-century positivism recognizes that "... there are only two forms of scientific knowledge – the formal disciplines of logic and mathematics and the empirical sciences according to the mechanistic model of the natural sciences – (arguing that) the social sciences will be born to be empirical" (de Sousa Santos 2009: 27). With the philosophical tradition of phenomenology, Max Weber, among others, arise antipositivist perspectives, according to which "... social sciences will always be subjective, (it will use) qualitative methods instead of quantitative ones, with the goal of obtaining an intersubjective, descriptive and comprehensive knowledge, instead of an objective, explanatory and nomothetic knowledge." (op.cit: 30) Being that nature responds to laws and that society, should it respond at all, will not do so abiding to laws similar to those that regulate physical or biological processes, then how to understand the scientific status of any social research work when these laws are transposed or applied from the natural sciences? What scientific characteristics have social explanations elaborated from laws that do not regulate social processes but natural ones?

Einstein brought about a break, with Heisenberg and with Prigogine others followed. Referring to the crisis of the dominant paradigm, Sousa Santos argues: "One of Einstein's deepest thoughts refers to the relativity of simultaneity ... The idea that we do not know of what is real but what we introduce in it is well expressed in Heisenberg's uncertainty principle". The physicist-chemist Prigogine goes even further: "... instead of eternity, history; instead of determinism, unpredictability; instead of mechanicism, interpenetration, spontaneity and self-organisation; instead of reversibility, irreversibility and evolution; instead of order, disorder; instead of necessity, creativity and accident". (op.cit: 34)

Another key aspect that helps to recognise the crisis of the dominant paradigm is the consideration that the law is not the only means to produce scientific knowledge: system, structure, model and process are concepts of remarkable value in our research, both in social and natural scientific science. Having countless laws, structures, systems, models and processes, to what extent should we continue to defend the "umbrella" of the nomothetic?

3 For further development, see works by Robert Temple and Joseph Needham in UNESCO's The Courier magazine, October 1988, available at: http://unesdoc.unesco.org/images/0008/000817/081712so.pdf

In regards to the ***emerging paradigm***, the four theses with their justifications exposed by de Sousa Santos originally in 1987 are remarkably clear. In summary they are: "1. All natural scientific knowledge is social scientific knowledge; 2. All knowledge is local and total; 3. All knowledge is self-knowledge; and 4. All scientific knowledge seeks to be constituted in common sense." (Op.ci: 41-57).

Based on the knowledge of these four theses, we are currently in a position to state that:

1. The knowledge produced during the origins of science and later in the exact, natural and social sciences has necessarily occurred in particular social and cultural contexts of knowledge, with Chinese, Egyptian, Mayan, with Newton, with Einstein or in any place and time of Humanity. It is necessary then to know the context in which the advances of science had, have and will take place.
2. All knowledge is local and total simultaneously, that is, it has conditions of exemplariness and replicability, although it does not necessarily respond to laws or universal principles. As an example, the problem of the largest informal urbanization in our city, Puente de Fierro, included in this publication has its exemplary nature and replicability in more than 50,000 urbanisations where more than 130 million people live in Latin America.
3. All knowledge is self-knowledge, because each subject is autonomous, or at least it should be; then, all knowledge is equal in value: scientific, community, political, entrepreneur, religious, philosophical, technical, crafts, others. It is necessary that the *knowledge dialogues* in Paulo Freire (1996), the *knowledge ecologies* in Sousa (2009) and the *knowledge interfaces* in Norman Long (2007) be accepted by a greater proportion of the approximately 7 million existing scientists, so as to get off the pedestal in which for centuries we scientistd were in science, along with philosophy and religion. In our research all knowledge is equal in fact.
4. For scientific knowledge to be constituted in common sense, a second epistemological rupture must take place; it is worth mentioning that to the epistemological obstacles present in Bachelard (2007) and Bourdieu (2002) and their corresponding ruptures, profiles and epistemological acts (Schuster 2005), a second epistemological break occurs, which implies a return to common sense: a decoding in order to achieve comprehension and understanding between all the subjects of each research object: neighbours, referents, politicians, entrepreneurs.

1.3 Teleological phase

What are the aims of Science considering the trends of Humanity and the Planet for the next half century? The accentuation of critical contexts for the future of humanity on our planet is related to the development of knowledge and our consciousness, both those who make territories possible and impossible territories impossible. The more knowledge and conscience we generate, the more will ignorance and/or unconsciousness about the current crisis of Humanity as a species be exposed. In this scenario, positions of *status quo, resistance and transformation* are not exclusive of science or scientists, but of all of us, that is, whether we are aware and conscious or unaware or unconscious of what is happening or not. How many in our daily micro-actions do we do enough to cushion or reverse some of

the facets of this crisis? Being aware of this, to what extent do we continue with this trend, that is, with this status quo that leads us along an uncertain path in the coming decades? How much time and energy do we dedicate to criticizs and resist so much abuse to people and environments? How much time do we use to transform, through subjective, social, environmental and decisional micro-transformations, some of the facets of this crisis? These three questions are also suitable for the approximately 0.1% of all human beings represented by us the scientists. Ultimately, each research we do, in the exact, social and/or natural sciences, is contributing directly or indirectly to promoting status quo, resistance and/or transformation. Although in practice it is the powers that be: political-institutional, business corporations, media, that exercise greater authority in decision-making, it is also true that we can not fall into naivety by ignoring teleology or the purpose of what we are investigating. That is to say, thinking whether my research will be useful or not, to whom it will then be useful, for what, for whom. Hence, conscience is equal in every human being, regardless of what is imposed upon us by those who exert more power.

The hypothesis is proposing the simultaneous existence of three sciences:

1. *The science of the status quo* is one whose production of new knowledge ultimately contributes to perpetuate structures and current trends of social inequality and environmental degradation, among others. What is the value of a vaccine, a healthy food, a technology for water or an urban or rural development plan if it does not reach those it was intended to reach? Considering that public policies and international organisations do it at least insufficiently, why does not science incorporate more useful scientific knowledge so as the so called scientific production reaches people?

2. *The science of resistance* is one that, while producing critical contributions of knowledge to the current trends of social inequality and environmental degradation, among others, preferably reaches degrees of transformation in consciousness -by education, awareness, sensitization- without sufficiently motorising decisional transformations in concrete actions, remaining at more discursive than factual levels.

3. *The science of transformation* is one that, while studying and knowing the status quo, criticism and resistance, also devotes time and energy to produce micro, meso and macro subjective, social, environmental and decisional transformations. These transformations manifest themselves in consciousnesses, spirits, perspectives (views or approaches), actions and objects. The transformation begins with the subjective (that is, inside each subject: in mind, body and soul), it then continues with the social (through a better relationship with others, particularly with other sectors) and through the environment (through awareness about of more care of the oikos or our common house). Finally, the transformation is decisional: if I do not carry out the subjective, social and environmental transformations of which I am aware, then the transformation will not take place, it will stay preferably at discursive levels, as is usually the case with Agendas, as we will see below.

2 What agendas

In Latin, agenda means "what has to be done" and derives from the gerundive *agĕre,* to do. According to the RAE (2014) the agenda is "1. Book, notebook or electronic device in which it is written, so as not to forget it, what must be done; 2. List of topics to be discussed at a meeting; 3. An orderly relationship of affairs, commitments or tasks of a person in a period". That is to say that, implicitly and explicitly, there is an objective and an action. When the objective is quite ambitious, the actions are more complex to execute. There are agendas of different scales, modalities and purposes: local, state, national, international, public, private, public-private, partnership, social, environmental, union, religious, political, scientific, cultural, sports, tourism, festive and many others.

Who formulates each Agenda? Usually the entity or organisation that is in charge of the initiative. What impact does each Agenda have on the rest of society which did not participate in its conception? It depends on the case. For instance, the proximity between objectives and actions between an Agenda specific to an artistic festival, and another one which aims at reducing poverty on the planet promoted by an international organisation, will differ significantly, as will its recipients. Likewise, behind those who set agendas of a more general scope, the analysis ultimately leads to a debate on hegemonies, power groups and media roles in the persuasion and construction of realities that, in this publication, for reasons of space, we can not include. Some useful antecedents are developed further below which may prove useful to think about the development of our own agendas.

2.1 Background

Although we have not defined classifications nor typologies of Agendas, in our search we detected the formulation of problems and solutions that concern science within fifteen representative Agendas of international organisations and national institutions dedicated to science.[4] We have not found Scientific Agendas where methods, techniques and results -with underlying theoretical assumptions- which account for the realization of concrete actions coherent with the exposed objectives are explained. We do identify, however, in the cases of Mexico and the Netherlands, the will to do so at the national level. Our Scientific Agendas are born from the convergence of three aspects: a) their integral, integrating and integrated visions of the problems under treatment; b) its exemplariness and replicability; and c) the strong will of application.

In the scientific field, this topic is often raised as a pending challenge. In "Environmental governance in Latin America: Towards an integrative research agenda" (Baud, de Castro, Hogenboom 2011) the need for an overarching agenda that addresses socio-environmental issues from Latin American perspectives with an interaction between the State, civil society and businesses at multiple scales is brought forth. The authors also highlight the difficulty of executing a similar initiative in contexts of persistent inequality, poverty, corruption, violence and limited institutionality, with an elite that deepens inequalities of power.

4 In addition to the UN, the XXIV Summit of Veracruz, the cases of Mexico and the Netherlands, we have added the following national cases: Argentina, Canada, United States, Finland, England, Japan, South Africa, Egypt, Nigeria, India, Australia.

How to build these integral science based agendas that lead in turn to a more plural and democratic governance? As these agendas are conceived and formulated at the state, national and international level, it is suggested that their execution be local, municipal or regional, emphasizing the three aspects before mentioned. In the proposed Scientific Agendas we try to apply simultaneous top-down and bottom-up management styles from the beginning to the end of each process so as to increase their feasibility and effectiveness.

At the international level, the 2030 Agenda of the United Nations, with its 17 Sustainable Development Goals approved in 2015, stands out for its thematic scope and planetary dimension. The 2030 Agenda is "an action plan in favor of people, the planet and prosperity, which also intends to strengthen universal peace and access to justice" (UN 2015)[5]. *The member states of the UN recognise the eradication of poverty as the greatest challenge in the world and ensure that only by advancing in this aspect can a sustainable development model prosper. The 2030 Agenda sets the foundations that set the guidelines for the development of other initiatives in the National States.*

There are transnational agreements with joint goals in shared agendas, such as the Citizen Agenda for Science, Technology and Innovation for Latin America Challenges 2030, approved in 2014 in Veracruz, Mexico, on the occasion of the XXIV Ibero-American Summit of Heads of State and Government. In the case of the national Scientific Agendas, the public information available refers to national ministries or scientific bodies. Agendas also exist in states, provinces, departments or other intranational administrative units. These are agendas of science, scientific-technological policy and innovation systems, along with agendas in economic, educational, cultural or other policies. Sometimes incompatibilities arise in the political-institutional instrumentation of this diversity of agendas.

There are cases where consultation bodies are also created, such as in Mexico since 2002 with the Scientific and Technological Advisory Forum, an autonomous body of permanent reference by the Executive and Legislative Powers. This forum proposes "to make science and technology a central part of the national agenda and that citizens participate in decision-making, to build a democratic, equitable knowledge society with sustainable development" (Foro Consultivo México 2018). In the case of the Netherlands, in 2015 the government introduced the National Scientific Agenda defined by scientists, the private sector, civil society organisations and the government. *"There, the planning focuses on the highlights of Dutch science and points to social problems and strengthen economic opportunities, which led in 2016 to an investment agenda. The proposed guidelines are related to the themes of a broader EU Agenda, Horizon 2020" (*Government of the Netherlands science plans for 2015-2025, (2014).

There are similarities and differences between these agendas: global as well as regional or national scientific, with the Scientific Agendas that we conceive. Some useful antecedents are developed further below which may prove useful when thinking about the development of our own agendas.

5 The 2030 Agenda is a continuation of Agenda 21, signed by the member countries of the UN in 1992 in Rio de Janeiro, where the declaration focused mainly on the environment.

2.2 Scientific Agendas at INTI International Network of Territorial Intelligence

We belong to the INTI Network and the Latin American Network "Possible Territories". Jean-Jacques Girardot, creator of the Territorial Intelligence (IT), recognizes six milestones that mark the creation and development of IT, the last of which refers precisely to the Agendas. "1) Catalyse Method: prehistory of the IT; 2) IT, multidisciplinary and participatory scientific approach; 3) IT, "multidisciplinary" approach; 4) IT oriented towards sustainable development; 5) Birth of a scientific co-operation with Latin America; 6) Concrete definition of a global socio-ecological transition agenda to promote participatory local agendas." (Girardot 2012: 30-37).

In the European INTI Network they execute Socio-Ecological Transition Agendas which correlates in good measure with the report "Le Monde en 2025" of the General Research Directorate of the European Union (2009). In the Latin American INTI Network they are called Agendas of Intelligence and Territorial Justice or Transformation Agendas. In fact, both are scientifically based agendas or simply Scientific Agendas.

In Latin America, these are partnership agendas built from an emerging paradigm with the participation of the "four legs of the Territorial Intelligence table": politicians, communities, scientists, entrepreneurs, which always are part of the process from the beginning. They pursue a vision of macro-transformation: subjective, social, environmental and decisional, beyond the micro-transformations that each one brings about in relation to the activities and concrete actions that are agreed to execute. The objective is that Agenda topics derive in State Policies or Public Policies and that the participants are co-authors of these policies. It is not a question of taking the role of the government nor replacing its citizens, but rather of contributing with knowledge and decision vectors typical of Transformation Theories, which are often absent from bureaucracy, political partisanships and the business world.

In a first approximation, from our perspective, an Agenda is a guide that allows orienting, organising and establishing priorities for the pursuit of certain purposes. It is thought and conceived to later execute decisions through micro, meso and macro actions, always with diverse and uncertain degrees of difficulty in its concretion. An Agenda determines emerging purposes of participatory diagnostics in situations in which it is intended to impact, establishing actions to reach a situation that approaches territories that are more possible than impossible.

2.3 The case: PIO-OMLP (UNLP-CONICET)

The PIO – Oriented Research Project of the UNLP and CONICET "Strategies for the Integral Management of the Territory", *Estrategias para la Gestión Integral del Territorio,* was carried out between 2014 and 2016 in two selected areas of La Plata, Ensenada and Berisso, Buenos Aires (Argentina). Its object of study (identification of social and environmental problems) allowed to formulate thirty Scientific Agenda Topics emerging from the research (object of intervention). They were classified in four groups according to their origin: topics of agenda emerging preferably from the natural sciences (1), from the exact sciences (2), from the social sciences (3) and from organisations, communities, institutions and compa-

nies that escaped to our macro-object of research (4). The combination, articulation and interpenetration of these thirty themes: the result of about twenty interviews and several workshops where results of the different lines of research were exposed from the Social, Exact and Natural Science, and the interaction with the "four legs of the IT table" contributed to prioritise three Agenda topics which were selected for their high social and environmental impact and their replicability and exemplariness. These represent three emerging issues of Public Agenda: a) Informal developments and slums, b) Territory, industry and environment and c) Urban vacant land.

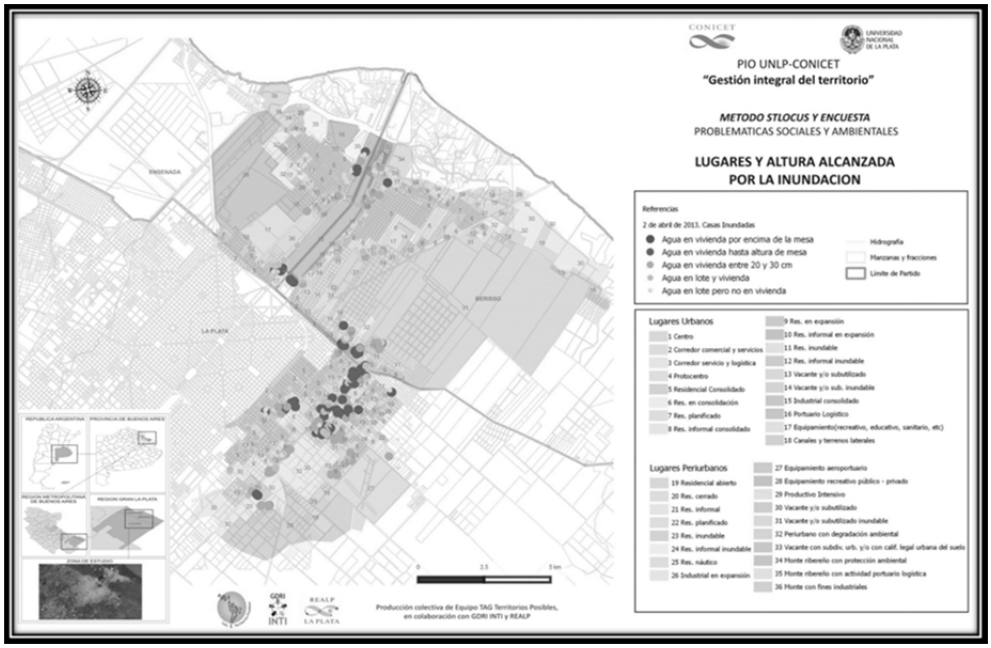


Figure 1. Areas of the object of study: Ensenada, Berisso and Arroyo Maldonado Basin. Source: PIO Project

Figure 2. Areas of the three objects of intervention and transformation. Source: PIO Project

These three Scientific Agendas hit close to home as they have critical, sad and painful roots, because we find them in thousands of places where structural problems are not solved throughout Latin America: they must be State Policies and they are not, at least not enough. It is estimated that in the world 4 billion people live in some 2 million localities, while 3500 million people live in very heterogeneous rural worlds, generally in conditions of poverty. Beyond considering the 17 objectives of the 2030 Agenda, the Scientific Agendas should bring the science, people, institutions and the business world closer together, that is, the "four legs of the table" of the IT. If the commendable 17 objectives are not made operative then the Agenda 2030 will be contradictory with its etymology, thus distancing discourses from actions.

It is estimated that more than 800 million people live in slums on our Planet. Moreover, it is estimated that there are comfortably more than one million urban interstices in the 300,000 most populated cities on the planet. These are vacant lands where public policies usually leave room for access by real estate groups and business corporations instead of planning for the social collective and the common good. Regarding large industries in urban areas, the difference in the environmental quality of companies is alarming in many cases it depends on whether these companies are located in economically more developed

or developing countries where subsidiaries of large transnational groups or other subsidiaries are based.

The perspective of vision and integral, integrative and integrated management of the territory differs from the sectoral vision – food, health, housing, education, and others – and also has the advantage of addressing in certain territories: urban, peri-urban and rural, the totality of the 17 objectives of the 2030 Agenda, contributing to overcome dichotomies which are inherent of the emerging scientific paradigm, particularly that of society-nature.

2.4 The concept of the Scientific Agenda

Between July 2016 and February 2018 we have made 37 monthly Work Tables with more than 120 work meetings since April 2013. This allowed us to calibrate our definition of Scientific Agenda balancing theory and praxis. The Scientific Agendas today integrate the OMLP Environmental Observatory La Plata.[6]

1. **Genesis.** A) Scientific Agendas of this nature are born from interdisciplinary research and previous inter-actors. B) They are born with people and institutionalised from the scientific-academic system. C) Although they arise and are promoted from the scientific field, the Agendas are quickly appropriated by the participating communities, scientific representatives, public institutions, social organisations and companies.
2. **Perspective.** A) They respond to comprehensive, integrated and integrated visions of a territory. B) Their integral perspective is fundamental, given the compartmentalised nature of public institutions, scientific disciplines, companies and other organizations. C) They set the guidelines that contemplate and address macro dimensions in articulation with 'what is to be done' (RAE 2014), also in a particular place (Puente de Fierro, Ensenada, Berisso or other) with actors in those places: the participants of each Table.
3. **Theory.** A) They strengthen the dialogue between categories and theoretical concepts and concrete praxis. B) They contribute to the construction of a Theory of Transformation, through its concrete application in both virtuous and vicious circles. C) These circles are integrated by micro-agreements, micro-actions, micro-systematizations, micro-achievements and micro-failures that produce subjective, social, environmental and decisional micro-transformations in the subjects participating in each initiative.
4. **Policies.** A) They enable the possibility of setting substantive issues in a public agenda, through their concrete applicability in virtuous and also vicious circles. B) They promote public governance, that is, the construction of inclusive public policies where people and environments are considered in actions rather than in mere discourse. C) They promote the articulation between the integrality of their conception and the sectoriality of their execution.
5. **Contents.** A) They refer mainly to social, environmental and cognitive problems; the economic and political problems are articulated to the three preceding ones. B) They articulate macro and meso processes in particular places with particular actors. C) They

6 The OMLP has a triple institutional membership: UNLP, CONICET and CICPBA (Commission of Scientific Investigations of the Province of Buenos Aires). It is a new body, created with the intention to contribute to the co-construction of Scientific Agendas aimed at building Public Agendas from the scientific-technological system. http://omlp.sedici.unlp.edu.ar/

promote identities, needs and dreams: they refer to what I am, what we are, what I need, what we need, what I want, what we want.

6. **Application.** A) All those who decide to participate, do so voluntarily. B) They are executed in a planned manner with Permanent Work Tables, monthly at least, and through other research techniques. C) Organisations, governments, companies, political parties, religious entities, unions and media participate bringing their unique identity into the mix.

2.5 Topics 2016-2017 of the Scientific Agendas in execution

The Permanent Scientific Agenda "Territory, Industry and Environment" has recognised, with the participation of neighbours, social referents, public institutions, companies, media, thesis, teachers, students and scientists, five macro-themes or macro-objects of basic, applied, and interdisciplinary research: I. Territorial Organisation; II. Environment and Territory; III. Environment and Health; IV. Social and Environmental Risks; V. Social and Environmental Rights. The macro-themes (I to V): which in science are called macro-objects of study, intervention and transformation, also include subjects or objects (1 to 29), in science, called processes, projects or objects of study, intervention and transformation.[7]

The Scientific Agenda 2014-2026 *"Puente de Fierro Territorio Posible"* in the homonymous informal urbanisation was built in eleven meetings or "mesas" between May and September 2016. In this intense work of listening, recording and interaction, 26 topics were incorporated by neighbours and referents. In short, they are: 1. Land registry; 2.Buses and bus stops; 3. Paving of streets; 4. Safe connections and electrical panels; 5. Security; 6 Sewers; 7 Running water; 8 Training in trades; 9. Community gardens; 10 Primary education; 11. Cooperatives of work; 12 Flooding, ditching and storm drains; 13 Public spaces and recreation; 14 Sidewalks; 15. Street nomenclatures; 16 Health centres; 17 Neighbuorhood representatives; 18 Rebuild history and identity; 19 Garbage and recycling; 20. Health: prevention actions; 21. Health: zoonotic diseases; 22 Childcare Centres; 23. Secondary education; 24 Education: pre-school; 25. Participatory budget; 26 Street lighting.

3 What praxis

Our position on praxis revisits Marxist-based reinterpretations in Kosik (1963) and Saquet (2017). This framework in which we conceive praxis, throughout the last decade, is linked with the application of the methodology conception proposed by Lazarsfeld (1972). Likewise, praxis and methodology are "grounded" theoretically and methodologically with the nine phases of the *Territorii Method* (Bozzano 2013). *Territorii* is executed with about twenty techniques: one of them is the *Permanent Work Table*, applied on 37 occasions in the IOP to the two *Scientific Agendas mentioned.*

7 For reasons of length, they are not included in this publication. They can be consulted on the official OMLP website available at http://omlp.sedici.unlp.edu.ar/group/estrategias-para-la-gestion-integral-del-territorio

Figure 3. Applicability of praxis

3.1 About praxis

There is no praxis without theory, be it underlying or explicit. Although the RAE (2014) states that praxis (from the Greek πρᾶξις prâxis) is "Practice, as opposed to theory", from our perspective practice and praxis are not synonymous, given that we interpret that praxis does not oppose the theory. Praxis builds theory, or in other words, theory is constructed with praxis. Rather than posing an opposition, it represents a hybridity or a dialectical process in which both are fed back and produce a new state. In praxis, human beings create their reality, their own and that of others, in its totality, being this both subjective and objective: said praxis is the determination of their own existence.

Praxis represents at least three hybridisations. As Saquet (2017) points out: "There is a dialectical unity in praxis between man and the world, between idea and matter." Praxis then hybridises practice and theory, hybridises man and world, and hybridises idea and matter.

Praxis is our determination of existence. "In its essence and universality, Praxis is the revelation of the secret of man as an ontocreative being, as a being that creates reality (human-social) and that, therefore, understands reality (human and not human, reality in its whole). The praxis of man is not practical activity opposed to the theory; it is the determination of human existence as the elaboration of reality" (Kosik 1963: 202).

Praxis unites people and science. "Praxis needs to be effective in a dialogical, participatory and reflective manner, thus, research necessarily needs to be oriented towards cooperation among different subjects in a certain territory, that is, for territorial development with a local, cultural and ecological base, strengthening praxis that reconcile popular knowledge, science, resistance movements and social practices such as agroecological and artisanal" (Saquet 2017)

Determination of existence, people and science, university in terms of research, teaching and extension, as we will see below, our methodology perspectives, the Territorii Method and the Work Table, go in the same epistemic line as this concept of praxis.

3.2 About the methodology

From our point of view, methodology is praxis because it hybridises practice and theory, and in each research object, it also hybridises man and world as well as idea and matter. However, it is easier to write it down than to do it. The set and the sequence of tools that we select, with theoretical basis, and that we apply in each project constitutes what we call methodology, understood in the sense given by Lazarsfeld: "Methodology examines the investigations to make explicit the procedures that were used, the underlying assumptions, and the explanatory

modes offered" (Lazarsfeld 1972, cited by Marradi et al. 2007: 53). In other words, tools (procedures), theories (underlying assumptions) and explanandum, chapters or parts of the project (explanatory modes offered) give a more complete sense to each methodology, articulating better principles, theories and actions. In our research we apply thirty social and spatial techniques included in a toolbox, that is, a set of methods and techniques from which to choose in order to know what moments of the research process are or may be useful and relevant for the object, the objectives and the hypotheses that we have outlined.

Figure 4. The first poster of the First Working Table in Puente de Fierro (2016) Photo: Horacio Bozzano

3.3 About the *Permanent Work Table*

The *Work Table* synthesises and applies the three aspects developed above: it is a permanent practice and is a scientific methodology that constructs knowledge and transforms reality. The name of this technique was born from referents of the participating social organisations who worked with us in our two Scientific Agendas as a way of expressing what they wanted to do: work side by side with scientists, public officials and, eventually, entrepreneurs, to make their territories more possible than impossible.[8] The concept developed to define this technique is built on an uninterrupted praxis that began on April 8, 2013 with the "La Plata with Territorial Intelligence" initiative promoted by our scientific network[9], then since August 2014 with the execution of the aforementioned PIO UNLP-CONICET Project and as of August 2016 with the OMLP. *It includes 12 pillars or items detailed below.*

8 Among many referents, most of them women, special thanks to Amalia Lassalle, Irma Borán, Rosa Dejesús, Celeste Mercado, Silvia Tabarez, Ana Díaz, Alicia Ledesma and Claudia Jacu.

9 http://territoriosposibles.fahce.unlp.edu.ar/noticias/la-plata-con-inteligencia-territorial

1. **New knowledge:** The Tables are co-constructors of knowledge. The acts of listening, dialogue, dissent and agreements produce new knowledge. Regardless of the diverse degrees of knowledge of the participants, none imposes their knowledge over the other: to achieve this is culturally, politically and ideologically complex. Disputes, always present in social arenas, are worked with dialogical processes where knowledge and altruism are valued over ignorance and selfishness. From the seven knowledge interfaces (Long 2006) new knowledge emerges.
2. **Readings:** In each Work Table, descriptive, perceptive, historical, prescriptive, interpretive, propositive, intelligent, transformative and/or virtuous readings present in the phases of the Territorii Method can be approached. Generally, Territorii contributes to define a macro-theme – of the 2014-2026 Agendas, in this case – constituted by meso and micro themes: 29 in an Agenda and 27 in another, which are executed with the application of these nine readings through micro- agreements, micro-dissents, micro-actions, micro-achievements and micro-failures.
3. **Protagonists:** Although scientists are promoters and mediators of the initiatives, with the participation of politicians, businessmen, thesis students and others, the leading actors are two: the neighbours as such or as part of civil society organizations, and the environment, which does not have a voice of its own in our language, but it does communicate in its way. Of the five components of the table of Territorial Intelligence: communities, politicians, entrepreneurs, environment and knowledge, the central protagonist is co-constructed knowledge, given that previously, this knowledge did not exist: the "leg" of knowledge generated with these micro agreements and micro-actions holds the table in better conditions. It is an alternative power where our love, altruism and co-operation: regardless of the leg of origin, prevails over our miseries or, according to oriental cultures, our sufferings.
4. ***Modus operandi:*** The Working Table consists of a monthly meeting: it can also be weekly, biweekly, bimonthly or in another period to be agreed upon, documented in minutes. In these meetings, problems and conflicts previously identified in a participatory research project are discussed in order to work in agreements oriented to develop actions finding ways, alternatives or solutions to micro, meso or macro problems.
5. **Planning:** These meetings are carried out with previously agreed upon agendas and documented with audio record and in posters or minutes which are redacted as the meeting progresses. The posters, notes or minutes are read and approved at the closing of each Table to confirm whether they give a fair account of positions, agreements and disagreements established between the participants. The venue of the Tables alternate as, for being cooperatives, they do not have a fixed place as their headquarters.
6. **Time:** Each Worktable has its previous moment for convening, planning and management. Normally, they are planned having in mind a duration of two hours. Sometimes, depending on the motivation and interest of those who are present, the Tables have been extended to three and up to four hours.
7. **Permanence:** In turn, there is also a meanwhile. In the lapse between one meeting and another, there is a stage of work which exists in order to move forward with the responsibilities assumed by the parties, to comply with the established agreements, and so as to begin the next meeting with an account of the advances, with micro-achievements

that allow us to continue building trust and more virtuous transformations rather than vicious ones.

8. **Respect:** Special consideration is given to respect for dissent, which naturally is always present. Consequently, the tasks of mediation are key to the coherence, viability and feasibility of the meetings and actions.
9. **Altruism:** Altruism, manifested in the commitment to the environment and society, is not inherent to a sector of society: citizens, politicians, businessmen, scientists, others- but rather to those who decide to devote time and energy to it. As each meeting is in the making, such considerations emerge explicitly or implicitly, sometimes with amazing clarity.
10. **Co-operation:** These meetings follow the logic of co-operation, of sharing, of knowing more and better identities, as well as the needs and dreams of the others and the collective. Efforts are being made to promote participation, and to bring officials or specialists in the field on which they are going to work closer to the meeting.
11. **Actions and objects:** In both workspaces: Tables and "inter-tables", the actions that are agreed upon are part of micro-objects of transformation: problematic punctual, actions, where the subjects are protagonists in a dialogical process. The Tables overcome the insufficiency of thought, reflection and theoretical lucubration so as to, by means of incorporation, promote decision: action with reflection. The object is always multidisciplinary (Morin 1965) and there are "multiactors" (scientists, neighbors, politicians), while the actions are also multidisciplinary and "multiactors".
12. **Democratising:** All the previous considerations, allow us to affirm that the Working Table is an instrument that contributes to democratise democracy in capitalism, in communism, even in the corruption inherent in both systems.

3.4 Permanent Work Tables Results

Of the 29 topics of the "Territory, Industry and Environment" Scientific Agenda, four topics have been addressed in the first seventeen Working Tables that were carried out: "Destabilisation of oil/water emulsions using chitosan (biopolymer) inside the YPF Refinery"; "Industrial pollution and health"; "Extension of the Ricardo Balbín Highway"; and "Contamination in the Port Channels". The next subject approved for its treatment is "Wetlands and Territorial Ordering".

Out of the 26 topics of the "Puente de Fierro Territorio Posible" Scientific Agenda, twelve topics have been dealt with in the first twenty Working Tables carried out: 1. Community garden offered by the Micro-Entrepreneurs Program of Cáritas Argentina (2016); 2. Collective decision about the type of public spaces that neighbors want (2016): already executed the works of three public spaces; 3. Periodic collection of waste (2017); 4. Promotion and execution of two training courses in the neighborhood (Ministry of Labor, 2017 and Vocational Training Center No. 423, 2018); 5. Conception, design, elaboration, execution and interpretation of the Census "Decent work, identities, needs, and dreams" (2017-2018); 6. Planning, writing and editing of the "La Revista de Puente de Fierro" magazine (2017); 7. Identification of more than 500 people willing to be trained to have a decent job, classified by category (2018); 8. Greater dialogue and participation among neighbors, organisations and other institutions 82016-2018); 9. "Club Ambiental Escolar" (Environmental School Club) Project in the province of San Juan (2018); 10. Nationalization of a lot for

the creation of a pre-school, school and health center (2018); 11. Pilot initiative of paths with plastic fibres (industry waste) to replace iron meshes (2018); 12. Project which has as its main objective that over 70% of the neighborhood, that today does not have sidewalks, gets them with local co-operative work. (2018)

Figure 5. Aerial view of the Puente de Fierro neighborhood (2017). Photo: Tomás Canevari

Figure 6. Aerial view of the Petrochemical Pole in Ensenada (2017). Photo: Tomás Canevari

4 Conclusions and perspectives

If the scientific work of the few million researchers that we are on the planet does not manage to involve a greater proportion of the 7500 million human beings that populate Earth, then most of the scientific knowledge produced will be further away from the 3500 to 4000 millions of human beings that today not only do not decide, but they do not know the power that comes with the good use and application of thousands of scientific advances. Therefore, the importance to be more aware, in each scientific investigation of which we are a part, of whether what we produce is used to perpetuate the dominant tendencies in our planet (status quo), if it is to criticise and resist hegemonic systems and subsystems, or if it is to produce transformations: subjective, social, environmental and decisional, that build, in facts rather than in mere discourse, millions of places, subjects, processes and possible territories. This is achieved by working, not without inertia and failures, in tandem with exact, natural and social scientists, with communities, politicians and businessmen, making everyone more aware of their role in the arenas where we have to develop.

In institutions, scientific disciplines, companies and in many other aspects of life, the topics are presented sectorialised, as if they were plots of reality. Sectoral agendas can be drawn by Comprehensive Agendas, not only participatory-scientific ones. Both the life of each human being and the development of each place do not constitute analytical mosaics. The implementation of these more comprehensive Agendas takes place with the realisation of specific punctual actions, which at the time of execution are still sectoral. However, in praxis they are not: if each sectoral or punctual action is not contextualised and executed with a more integrating vision, the risk of failure increases.

Besides the two Agendas introduced in this article, there are currently about fifteen structural topics of Scientific Agenda that in our TAG Territories Possible network we have identified, after learning about said topics and listening to the presentations of more than 700 projects in 55 universities in 12 countries of Latin America (2009-2018). In short, they are as follows: 1.Response to native peoples; 2. Large scale mining, environment and society; 3. Underground aquifers; 4. Fracking in hydrocarbons; 5. Informal urban developments; 6 Vacant urban and peri-urban land; 7 Large industries, environment and territory; 8. Municipal decentralisation and allocation of resources; 9. Social economy and environment in rural areas; 10 Social economy and work in urban environments; 11. Environmental tourism with social economy; 12 Territorial planning with intelligence and territorial justice; 13 Children, teenagers and the future; 14 Continental ice; 15. Other topics in analysis. Each topic is integral although it has a portion of sectoriality in its original formulation. The exemplariness and replicability of these problems in a large part of the most neglected sectors of Humanity, and of the least taken care of environments, if worked with people and science, can give rise to more democratic and inclusive Public Policies.

The real incorporation of community actors, politicians, entrepreneurs and diverse scientific disciplines in our research begins with a series of no less than 10 interviews at the moment prior to the beginning of the investigation: this helps to define, in the most solid way possible, problems and possible solutions, and with it, the object of research in its three phases: study, intervention and transformation. The selection of interviewees is complex, thorough and must be representative of the problem that will be investigated. The

worldviews, histories and perspectives of each interviewee are always different, and consequently, so will be the disputes of meanings. During the process of investigation, consistency is to be kept in accordance with the Theories of Transformation that are decided to investigate and deepen and with the real solution, not the discursive one-.

Underlying all of this is the matter of power, which is the subject of another publication. The political, economic and social powers investigated by Erik Olin Wright are the object of an attempt of theoretical applicability by this author through four strategies that he calls anti-capitalist. We investigated and tried to apply two of them: symbiotic and interstitial (Olin Wright 2014: 329-371), highly related to top-down and bottom-up management styles respectively, as well as when the author refers respectively to domesticate and erode capitalism. In our first 37 Work Tables we have tested Wright's hypotheses. At the same time, the three premises of the Southern Epistemology in Boaventura de Sousa Santos have been the object of attempts of application in our 37 Tables: "1. There will be no global social justice without global cognitive justice (our aggregate: global environmental justice); 2. As it was in the beginning, capitalism and colonialism continue to be deeply intertwined; and 3. The epistemology of the South aims primarily at knowledge practices that allow intensifying the will for social transformation" (de Sousa Santos 2009: 338). Of the 29 and 27 Agenda Topics, we have addressed 4 and 6 topics in these first 37 Tables: in all of them, we have analysed the relationships between political, economic and social powers, as well as in the multiple micro-powers at play, in which not only do the powers themselves participate but also our human miseries. To overcome discourses, generating from the praxis, actions and results that account for viable alternatives to capitalism is not only a challenge for damaged societies and environments, but to strengthen with praxis Theories of Power and Theories of Transformation.

Bibliography

Bachelard G. (2007). *La formación del espíritu científico. Contribución a un psicoanálisis del conocimiento objetivo*. Mexico: Siglo XXI.

Baud M., de Castro F., & Hogenboom B. (2011). Environmental governance in Latin America: Towards an integrative research agenda. *ERLACS*, *90*, 79-88. DOI: https://doi.org/10.18352/erlacs.9749

Bourdieu P., Chamboredon J.-C., & Passeron J.-C. (2002). *El oficio del sociólogo*. Buenos Aires: Siglo XXI.

Bozzano H. (2013). La geografía, útil de transformación. El método Territorii, diálogo con la Inteligencia Territorial. *Campo-Território: revista de geografia agrária*, *8*(16), 448-479.

Bozzano H. (2014). La ciencia y la gente: nuestro trabajo y los paradigmas ¿cuán cerca de la ciencia?, ¿cuán cerca de la gente? *Revista científica UCSA*, *1*(1), 56-63.

Bozzano H., Biera A., Dejesús R. E., Díaz A. M., Jacu C., Mercado C., & Tabarez S. R. (2017). Territorios posibles y mesas de trabajo permanentes: Porlíticas Públicas. Caso Puente de Fierro, La Plata, Argentina. En *II Jornadas de ordenamiento territorial* (pp. 1-38). San Juan: UNSJ.

Commission Européenne. (2009). *Le monde en 2025 – La montée en puissance de l'Asie et la transition socio-écologique*. Luxembourg: Office des publications officielles des Communautés européennes. Recuperado a partir de https://ec.europa.eu/research/social-sciences/pdf/policy_reviews/le-monde-en-2025-report_fr.pdf

De Sousa Santos B. (2009). *Una epistemología del sur: la reinvención del conocimiento y la emancipación social*. Siglo XXI.

Corominas J. (1973). *Breve diccionario etimológico de la lengua castellana* (3ra ed.). Madrid: Gredos.

Foro Consultivo Científico y Tecnológico México. (2018). Recuperado 12 de marzo de 2018, a partir de http://www.foroconsultivo.org.mx/

Freire P. (1996). *Pedagogia da Autonomia*. Río de Janeiro: Paz e Terra.

Girardot J.-J. (2012). Seis hitos en la creación y el desarrollo de la Inteligencia Territorial. En *Inteligencia Territorial. Teoría, métodos e iniciativas en Europa y América Latina* (pp. 30-36). La Plata: EDULP.

Government of the Netherlands science plans for 2015-2025. (2014). Recuperado 12 de marzo de 2018, a partir de https://www.government.nl/topics/science/science-in-question

Kosik K. (1963). *Dialetica Do Concreto* (4.ª ed.). Río de Janeiro: Paz e Terra.

Lazarsfeld P. (1972) Continuities in the Language of Social Research. New York: Free Press.

Long N. (2007). *Sociología del Desarrollo: Una perspectiva centrada en el actor*. México: CIESAS.

Marradi A., Archenti N. & Piovani,J. (2007) Metodología de las Ciencias Sociales. Buenos aires: Emecé

Ministerio de Ciencia, Tecnología e Innovación Productiva de la Presidencia de la Nación. (2013). *Argentina innovadora 2020. Plan nacional de ciencia, tecnología e innovación productiva*. Buenos Aires. Recuperado a partir de http://www.argentinainnovadora2020.mincyt.gob.ar/wp-content/uploads/2012/06/sintesis_2013_web.pdf

Morin E. (1965). *Introduction a une politique de l'home. Suivi de «arguments politiques»*. Éditions du Seuil.

Olin Wright E. (2014). *Construyendo utopías reales*. Madrid: Akal.

ONU. (2015, septiembre 25). La Asamblea General adopta la Agenda 2030 para el Desarrollo Sostenible. Recuperado 12 de marzo de 2018, a partir de http://www.un.org/sustainabledevelopment/es/2015/09/la-asamblea-general-adopta-la-agenda-2030-para-el-desarrollo-sostenible/

Ortega R. C. (2011). TIPNIS y Amazonia: Contradicciones en la agenda ecológica de Bolivia. *ERLACS*, *91*, 77-83. DOI: doi.org/10.18352/erlacs.8405

RAE Real Academia Española y Asociación de Academias de la Lengua Española (2014). «ciencia» «agenda» «praxis». Diccionario de la lengua española (23.ª edición). Madrid: España. ISBN 978-84-670-4189-7. Consultado el 8 de marzo de 2018.

Saquet M. (2017). *Consciência de classe e de lugar, práxis e desenvolvimento territorial*. Río de Janeiro: Consequência.

Shuster F. (2005). *Explicación y predicción. La validez del conocimiento en ciencias sociales*. Buenos Aires: Clacso Libros.

UNESCO (2015). *UNESCO Science Report Towards 2030*. Paris: UNESCO Publishing. Recuperado 21 de marzo de 2018, a partir de http://unesdoc.unesco.org/images/0023/002354/235407e.pdf

About the authors

Horacio Bozzano: PhD., is Professor in the University of La Plata, Buenos Aires, Argentina. Institutional affiliation: Instituto de Investigaciones en Humanidades y Ciencias Sociales, Universidad Nacional de La Plata, CONICET Consejo Nacional de Investigaciones Científicas y Técnicas, Argentina. Coordinator of the Territory, Actors and Governance research programme which focuses on Participatory Action Research.

Tomás Canevari: Bachelor and doctoral student in Social Communication. Assistant Professor at the University of La Plata, Buenos Aires, Argentina. Institutional affiliation: Instituto de Investigaciones en Humanidades y Ciencias Sociales, Universidad Nacional de La Plata, CONICET Consejo Nacional de Investigaciones Científicas y Técnicas, Argentina. He works in community-engaged action research specialising in the fields of communication and education.

Authors' addresses
Horacio Bozzano
Facultad de Humanidades y Ciencias de la Educación
Universidad Nacional de La Plata, Ensenada, Buenos Aires, 1925
E-mail: bozzano59@gmail.com
Phone: +5492214373420

Tomás Canevari
Facultad de Humanidades y Ciencias de la Educación
Universidad Nacional de La Plata, Ensenada, Buenos Aires, 1925
E-mail: tomascanevari@gmail.com
Phone: +5492235189578

Exploring Doctorateness in Insider Action Research

David Coghlan, Paul Coughlan and Abraham B. (Rami) Shani

Abstract
While debates about the nature of 'doctorateness' are prevalent in higher education, what this might mean in the context of insider action research, where action research is undertaken by members of an organisation or community, has not received any attention. This article explores how an insider action research engagement in a thesis and core project generates a synergy between the actions, a deep discipline knowledge, competence in research through first, second and third person processes, and competence in presentation can serve as a foundation for doctorateness. The dissemination contributes to a community of practice and inquiry.

Keywords: doctoral education; 'doctorateness'; action research; insider action research; core and thesis projects, first, second and third person inquiry; communities of inquiry

Explorando el proceso de doctorado (*doctorateness*) en investigación acción interna

Resumen
Mientras que los debates sobre el carácter de intensidad y calidad en estudios doctorales (referido como 'doctorateness') son frecuentes en la educación superior, la investigación de acción interna, que se lleva a cabo por los miembros de una organización o comunidad, no ha recibido mucha atención. Este artículo explora cómo una investigación de acción interna genera una sinergia entre las acciones, el conocimiento profundo de la disciplina, la competencia en la investigación a través de los procesos de primera, segunda y tercera persona, y la competencia en la presentación, que sirve como base para el concepto de 'doctorateness'. Las implicaciones de este artículo contribuyen a la práctica en la industria y a la investigación en el área de investigación de acción interna.

Palabras claves: educación doctoral; doctorateness'; investigación acción; investigación acción privilegiada;base de tesis proyectos y, primero, segundo y tercero de la investigación;comunidades de investigación

1 Introduction

At a viva voce for a doctorate undertaken through action research some time ago, one of the authors asked the doctoral candidate on what basis did he think he should be awarded a doctorate for his work. The candidate's spontaneous answer was that he had attended to the data within himself and with others, that he was in dialogue with the literature, was transparent about his conclusions, and that he was contributing something for others to build on.

Reflecting on this response it can be seen that this researcher was implicitly describing the doctoral quality of his work in terms of engagement within himself, his co-inquiry with relevant others, and contribution to a broader audience. The practice of insider action research, whereby individuals undertake action research in an organisation or community in which they are employed or are a member, is becoming increasingly more common. In such settings doctoral candidates base their doctoral work on interventions in their own organisations (Hart, Kylen, Norrgren & Stymne 2004; Roth, Shani & Leary 2007; Williander & Styhre 2006; Coghlan, Shani, Roth & Sloyan 2014; Coghlan, Shani, & Roth 2016). The notion of 'doctorateness' is an emerging notion, and results from specific critical research features being present in a doctoral thesis (Trafford & Leshem 2008; 2009; Wellington 2013; Poole 2015). With the continuing development of doctoral research using action research, what might be meant by doctorateness in the insider action research setting? This article explores an answer to this question, and offers a framework for insider action research doctoral students, their supervisors and examiners. The article is structured as follows. First we explore the notion of doctorateness and doctoral "integrity". Second, we remind readers of the nature and practice of action research and insider action research, and we discuss how action research at doctoral level involves two current and intertwined projects, the *core* project and the *thesis* project (Zuber-Skerritt & Perry 2002). We review the three modes of inquiry that are well-established in action research which act as an integrating framework. These modes are first- second- and third-person practice. Third, we bring in insider action research in doctoral education, the core and thesis projects; modes of inquiry; quality together. Fourth, we articulate a framework of 'doctorateness' for insider action research, that integrates first- second- and third-person in the core and thesis projects and meets the quality requirements of action research.

2. What is 'doctorateness'?

The notion of 'doctorateness' is an emerging notion (Trafford & Leshem 2008; 2009). Wellington (2013) describes it in terms of five areas of activity: the purpose of doctoral study; the impact of doctorates; written regulations for the award of the doctorate; the examination process; and, the voices of those involved in doctoral study and examination. Wellington contends that the notion of doctorateness, as an inner essence, will never be found or accepted. In a rebuttal of Wellington (2013), Poole (2015) contends that progress towards a description of doctorateness has been made, citing Trafford and Leshem (2008; 2009). Poole advances the discussion by questioning whether or not doctorateness is a characteristic of the thesis document, the candidate or both.

For the purposes of this paper, we subscribe to the concept of doctorateness, proposed by Trafford and Leshem (2008: 51-2) who describe it as a 'jigsaw puzzle that can only be fully appreciated when all the components are present and fitted together'. Such synergy in doctorateness is among specific critical research features which "form a mutually interdependent network system of parts that have practical relationships with the thesis" (Trafford & Leshem 2009: p. 308). These features begin with a stated gap in knowledge, which merits investigation through framing a question, conceptualising the problem, designing and implementing the research, gathering and analysing data, developing a theory-based argument, leading to an original contribution to knowledge. Graham-Cagney, Coughlan and Andrews (2012) grouped these individual features into three distinct but related sets: deep discipline knowledge, high levels of competence in research skills, and competence in presenting the argument or thesis. This grouping illustrates the research journey undertaken by doctoral students and recognises the synergistic nature of 'doctorateness' as a pathway to understanding, conceptualisation and researching within their domain. At the end point of the journey, the evidence of 'doctorateness' is in both the thesis document and the candidate.

Doctoral students have many choices as they design, develop and defend the thesis document. There are different models for this document: the traditional monograph, or the thesis by publication. The latter can include a number of published articles with an integrating paper. Common across all is a volume which is greater that a single journal article. The focal phenomenon and the associated research question are central. The philosophical perspective and the resulting methodological choices determine the nature of the research and the resulting contributions to theory and to practice. Without distinguishing between the notionally characterised research doctorate and the practitioner doctorate, some phenomena and questions present the researcher with the opportunity and need to engage more actively with practice and practitioners and, indeed, to intervene. Action research in its many variants is available to the researcher as an appropriate choice. So, how then might the notion of doctorateness be applied to the field of action research, and insider action research in particular, where the focus is on both action and knowledge generation?

3. Action Research

Within the wide variety of approaches to and definitions of action research that can be found within the field, we are working from a definition provided by Coghlan and Shani (2018: 4) that for us captures the essence of action research.

> Action research may be defined as an emergent inquiry process in which applied behavioural science knowledge is integrated with existing organisational knowledge and applied to address real organisational issues. It is simultaneously concerned with bringing about change in organisations, in developing self-help competencies in organisational members and adding to scientific knowledge. Finally, it is an evolving process that is undertaken in a spirit of collaboration and co-inquiry.

There are four factors underpinning action research projects. As action research is localised, understanding the *context* of any action research initiative and contributing to that context is paramount. By context we mean understanding how the organisation and the action re-

search initiative is grounded in the challenges from an external and internal environment, and ultimately the initiative needs to deliver in terms of those challenges. The *quality of relationships* capturing the values of research *with* people enables the co-generation of actionable knowledge (Coghlan & Shani 2018). The wide variety of actors that engage in the action research process form a community of inquiry (Coghlan & Shani 2008). The community of inquiry's engagement in cycles of action and reflection remains the bedrock of the action research process, and taking action and concurrently inquiring into that action leads to the *dual outcomes of knowledge that is actionable* through the scholarship of practice. For action researchers enrolled in an academic education programme leading to a doctorate, these four factors act as a philosophical and practical backbone.

4. Insider Action Research

Insider action researchers are those who conduct action research in an organisation or community in which they are employed or are a member. With the growth and development of doctoral education, where students may have a career in practice and wish to explore questions in that practice, doctoral students increasingly are also insiders. As doctoral students they become scholar-practitioners, who are not merely practitioners who do research, but rather that they integrate scholarship with their practice and generate actionable knowledge, that is, knowledge that is robust for scholars and actionable for practitioners (Coghlan 2013).

The challenges facing insider action researchers are fourfold (Coghlan 2019; Coghlan & Brannick 2014; Coghlan & Shani 2015). One challenge is pre-understanding, that is, how they explore the familiar and what may be tacit and taken for granted, and achieve critical distance. This challenge is pertinent as insider action researchers challenge existing assumptions and proposed solutions that emerge. A second challenge is how they manage role duality, that is, the researcher role alongside, and at times in conflict with the array of organisational roles they hold. The third challenge is how they manage organisational politics, i.e. be effective in enabling the change to occur and continuing their career in the organisation and in co-generating actionable knowledge. The fourth challenge is the actual formation of the community of inquiry and ways to establish that community. These challenges are recognizable to the experienced insider action researcher.

5. Communities of Practice and of Inquiry

Action research activities trigger the involvement of a wide variety of actors that play a role in the project. The different actors that represent diverse individual agents, collective agents or communities of practice form a community of inquiry (Shani & Mohrman 2008). The simultaneous evolution of the actions, research tasks and the relationships in the community of inquiry affect the outcomes of the action research effort (Coghlan & Shani 2008).

Communities of practice are formed by people who engage in a process of collective learning in a shared domain of human endeavour (Wenger et al. 2002). The domain is de-

fined by a shared field of interest. Membership implies a commitment to the domain and a shared competence that distinguishes members from others. As members of a community of practice, members engage in joint activities, help each other, and share information. They build relationships that enable learning from each other. They seek to develop a shared repertoire of resources over time and with sustained interaction: experiences, stories, tools, and ways of addressing recurring problems.

A community of inquiry integrates a variety of communities of practice, such as communities of managers, researchers, functions, disciplines, and organic units within and outside a system (Shani & Docherty 2003). The action researcher shoulders the responsibility of establishing the community of inquiry. Initially, the community of inquiry can be loosely coupled, but as the action research project progresses, the community of inquiry might have to establish ways of organising, structures and processes, all of which centre on the true collaboration in addressing and pursuing the emerging action research effort. The quality of the community of inquiry has a great deal to do with its effectiveness in producing practical and scientific outcomes.

6. Three Modes of Inquiry/Practice

Enacting insider action research involves insider action researchers working with colleagues and relevant stakeholders in face-to-face interactions. These interactions are probably a primary activity within the organisation. Insider action researchers are also likely to work with a group that reflects on how the action project is progressing and which support the thesis inquiry. Insider action researchers are likely to find themselves personally and professionally challenged through these interactions, and consequently find themselves engaging in personal reflection and self-learning. At the same time the doctoral project is aiming to contribute actionable knowledge to a wider community beyond those directly involved. These three practices of working with others, engaging in self-learning and contributing to an impersonal community, are referred to as first, second and third person inquiry/practice.

- At its core *first person practice* involves insider action researchers attending to and inquiring into their own learning-in-action. Doctoral accounts of the *first person practice* demonstrate how the insiders present the challenges of how they managed the closeness to the system and demonstrated critical distance and inquiring- and learning-in-action throughout the project.
- *Second person* inquiry/practice addresses collaborative inquiry and work with others on issues of mutual concern, through face-to-face dialogue, conversation and ethical joint action and embedding change (Holian & Coghlan 2013). Doctoral accounts of *second person* practice need to show the quality of research *with*, that is, how the project was selected, how cycles of action and reflection were designed, implemented and evaluated collaboratively with systematic methodological reflection.
- *Third person* inquiry/practice aims to show how through the engagement of second and first person practice that the project is significant, how it has some implications beyond those who were involved directly in it, and how it had an explicit aim to elaborate or

develop theory as well as to be useful to the organisation. Third-person dissemination through publications, participation at conferences and workshops contributes to communities of practice and inquiry.

As action research is the fruit of all three modes then the thesis document needs to demonstrate explicitly how the third person contribution emerges from the first and second person engagements, the synergistic dynamics between them, and how theory informed the design and development of the actions. Anticipating a point for later discussion, this connection between the three modes points to doctorateness being a characteristic of the doctoral researcher, based upon the engagements, the theory and reflection, and the articulation of implications.

In Coghlan, Shani, Roth and Sloyan's (2014) account of insider doctoral work by two executives, one of the authors relates the outcome of his first-person practice in terms of learning to live with his own vulnerability, learning to overcome the fear of failure, and receiving self-insight into his personal credibility. Under second-person outcomes he describes how his team worked at developing collaborative research skills, built and supported teams throughout the organisation and created process of cross team knowledge sharing and learning. The third-person outcomes that he presents are that the organisation built learning mechanisms throughout the organisation, engaged in system-wide knowledge sharing, developed tools that were used on subsequent projects, and overall developed the ability to enact organisational change.

7. Core and Thesis Projects

When action researchers are enrolled in an academic education programme, such as one leading to a doctorate, it is useful to note that typically there are two action research projects co-existing in parallel (Zuber-Skerritt & Perry 2002). First there is the *core* action research project, which is the project on which the doctoral researcher is working within an organisation or community. This project has its own identity and may proceed, irrespective of whether or not it is being studied. As action research initiatives address real issues in organisations and are driven by organisational needs, they may represent an opportunity for the doctoral researcher to tap into an already active agenda for action and change. The project may also be funded externally, and carry with it a timescale and deliverables which are independent of the academic research programme. Second, there is also the *thesis* action research project. This project involves the action researcher's inquiry into the core project. This distinction is useful as it is the *thesis* project which will be submitted for examination, rather than the *cor*e project. While the *core* project may be successful or unsuccessful, it is the researcher's engagement in and inquiry into the process (rather than the outcome), and the associated contribution to domain knowledge which merits the academic award the doctoral researcher is pursuing. For the prospective researcher, the *core* project may be proceeding irrespective of their involvement. As the prospective researcher is an insider, the *core* project may form part of the "day job" with budget, relationships, deliverables and deadlines. In that context, the prospective researcher is a member of a community of practice. However, for the prospective researcher to decide to undertake *thesis* research is to

open up a new perspective on the opportunity presented by and for the core project. Framed more formally, the concern here is with the rationale for the research, and the related rationale for the *core* project. In that context, the prospective researcher is a member of a community of inquiry. Zuber-Skerritt and Fletcher (2007) elaborate the inter-relationship between the *core* action research and the *thesis* action research. The *core* action research project is a collaborative venture whereby the cycles of action and reflection are enacted in multiple successive and concurrent cycles in first and second person practice. The *thesis* research project involves the action researcher in independent work, at both ends of the entire process. Ultimately it is the individual who writes the *thesis* document and submits it for examination.

The four factors discussed above are useful in understanding the challenges of the *core* and *thesis* projects. For the action researcher, the context of *core* project lies in understanding its organisational world, i.e. where the project stands in relation to the position of the organisation in its industry and society. The context of the *thesis* project is the existing research of that particular domain and doctoral researchers need to demonstrate knowledge of the academic context of their research. Familiarity with this literature and knowledge of practice in that field are pre-requisites for engaging in the *thesis* action research based upon the *core* project. Research-based inquiry into the *core* project through action research (the *thesis* project) may be framed as cycles of action and reflection matching the *core* project as it develops iteratively. Engaging in such cycles places action at the heart of the research process, and thereby marks action research as fundamentally distinct from research approaches that are typically referred to as 'applied'. The insights generated by insider action researchers in such projects allow the organisation to learn continuously and change by embedding mechanisms that sustain learning in the community of practice. In action research, the members of the organisation (or some of them) and the thesis researcher are also co-researchers who form a community of inquiry. It is through the collaborative study of cycles of action and reflection undertaken by the community of practice, and guided by the community of inquiry, that the actionable knowledge from the core project is generated and thesis project develops.

In her insider action research doctoral work, Atienza (2017) identified the *core* action research project in terms of promoting the organisational identity of the organisation of which she was the founder, and the *thesis* project as developing a theory of building organisational identity.

Table 1. The *core* and *thesis* projects as action research

	Core AR Project	**Thesis AR Project**
Context	Real issue for real people with stakes for resolution Causal analysis of forces in external and internal context	Framing contribution in practical and theoretical contexts Causal analysis of forces in external and internal context
Quality of relationships	Community of inquiry Collaborative working relationships among key actors Managing political dynamics ethically	Community of inquiry *Developing modes of collaborative inquiry with co-researchers that engage with actionable knowledge cogeneration as well as project advancement
Quality of AR process	Collaborative engagement in cycles of context analysis, planning action, taking action, evaluating action and reflection on learning	Engagement with meta-learning • Content • Process • Premise
Outcomes	Relevant sustainable progress on the issue	Actionable knowledge

Table 1 juxtaposes the two projects with the four factors identified above. The *core* project unfolds in real time, and requires a clear rationale for action. The organisation may be clear in its own terms on why it needs to engage in the action or change initiative and why now. In preparation for that, action researchers need to become familiar with the environment in which the organisation operates. Just because it is necessary for the organisation to engage in the proposed action does not mean that it holds the potential to contribute new knowledge of value in *thesis* research terms. The complementary question is to return to the rationale for the research and, in particular, the rationale for the *thesis* action research project. For action researchers, evaluation involves reflecting on the outcomes of the core action, both intended and unintended, against the planned core purpose as a basis for a response to the underlying *thesis* research question. For action researchers, the initial formation of the community of inquiry takes a front stage. Beyond the academic advisor and/or supervisor, attention should be paid to the identification of organisational members that not only might be willing to join the community of inquiry, but also could provide the support and guidance needed. Dialogue within the community of inquiry can help shape either the *core* project or *thesis* research question. In the *thesis* project, reviews involve questioning what took place in the *core* project, how and what meanings the process and outcomes might have in terms of the research question and project.

Among the variants of action research, the researcher can have different relationships with the *core* project. Put simply, the researcher may come from the outside and engage with those who are inside in a process consulting role (Schein 1999). Alternatively, the researcher may be an insider already and, so, recognised and familiar with the context, engages in the core and thesis project from the platform of their organisational role (Coghlan 2019; Coghlan & Brannick 2014). As this latter role is the focus of the paper, we now discuss this specifically.

Table 2 juxtaposes the two projects with the three modes of inquiry/practice.

Table 2. First-, second- and third-person practice in the *core* and *thesis* projects

	***Core* AR Project**	***Thesis* AR Project**
First Person	Engaging in experiential learning about self through engagements	Showing how dealt with challenges of *preunderstanding*, *role duality* and *organisational politics and ethics* Showing that accounts of self-engagement and self-learning are trustworthy and consistent with the second person practice.
Second Person	Working with relevant others in project, design and management Teambuilding and maintenance	Showing the quality of *research with*: • project selection • how cycles of action and reflection were co-designed, co-implemented and co evaluated with scientific rigour and systematic method. • how data were co-generated, gathered, co-explored and co-evaluated with scientific rigour, through multiple action research cycles
Third Person	Establishing learning mechanisms Implications beyond the project	Showing how through the engagement of second and first person practice that the project is significant and how has some implications beyond those who were involved directly in it. Showing explicit aim to elaborate or develop theory as well as to be useful to the organisation.

As introduced above, Coghlan and Shani (2018) present four factors as the basis of assessing quality in action research: context, quality of relationships, quality of the action research process itself and outcomes. Pasmore, Woodman, and Simmons (2008) postulate that action research needs to be *rigorous, reflective* and *relevant*. *Rigorous* in action research typically refers to how data are generated, gathered, explored and evaluated, how events are questioned and interpreted through multiple action research cycles. *Reflective* refers to the attentiveness to the actions and the thinking behind them, and the critical questions posed. Action research takes place in the present tense and therefore is full of choices. *Relevant* refers to how the *core* project of working on a real issue shapes the *thesis* project and challenges the inquiry to remain grounded in the actual demands of the *core* project. The explicit attention to these questions and to the issues of being rigorous, reflective and relevant, and to the quality of the collaboration takes action research beyond the mere narration of events, to rigorous and critical questioning of experience leading to actionable knowledge for both scholarly and practitioner communities. As Coghlan and Shani (2018) explore, quality involves discussing how these four factors are engaged rigorously, reflectively and relevantly.

8. Discussion

The question underpinning this paper is what might be meant by doctorateness in the insider action research setting. We have explored the notion of doctorateness in terms of the

synergy among competences in research, discipline knowledge and in the presentation of the thesis argument. Trafford and Leshem (2009) visualised their model of doctorateness and included a range of features of the thesis. Graham-Cagney et al. (2012) grouped these features in a way that exposed the synergies to be demonstrated among deep discipline knowledge, competence in research, and competence in presentation. We have explored also action research and the opportunities for the doctoral student as an insider action researcher. Insider action research challenges preunderstanding, role duality and organisational politics in a way which requires extended competences in the action researcher.

Figure 1 illustrates the essence of our explorations into doctorateness in insider action research where the doctoral student needs to demonstrate cross-disciplinary knowledge, and abilities to co-research and to defend the contribution of self in the development of the thesis argument. Research opportunities may not be located within the boundaries of a single discipline. For some approaches to research, the research question may be defined so as to locate and manage the research focus within a single discipline. In contrast, where the research opportunity arises within a community of practice, the boundaries between disciplines may not be avoidable in the same way and, so, require the researcher to adopt a cross-disciplinary perspective. In effect, opportunities or problems in practice do not map easily over academic disciplines and, so, the insider action researcher needs to have a competence which crosses disciplines.

Figure 1: Doctorateness in insider action research

Positioning of relevant issue in practice reflecting a gap in knowledge	Articulating a research question which can be investigated through engagement in action	Conceptual framing of the issue, constructs and associated relationships	Positioning of third person actionable contributions to theory and practice
Clear demonstration of first and second person inquiry/practice			Articulation of IAR challenges in both core and thesis projects
Reflective engagement with theory through cycles of action & reflection			Rigorous, relevant and reflective research design of core and thesis projects
Practical and conceptual defence of the actionable knowledge presented			Rigorous and reflective co-generation and gathering of relevant data
Third person conceptual and practical action-related conclusions	Research question answered with actionable knowledge	Clear presentation for second and third persons (academic and practitioner)	Clear demonstration of third person inquiry/practice from first and second person inquiry/practice

As illustrated, the thesis is located in (or between) disciplines. As such, insider action researchers need to show their understanding of the operational, organisational and academic context of the planned action and the research. They need to position the relevant issue in

practice reflecting a gap in knowledge. They need to articulate a research question which can be investigated through engagement in action. They need to be open to the potential for collaboration about the framing and reframing of the *core* and *thesis* projects. Finally, they need a competence in framing the issue conceptually, including identification of constructs and associated relationships. This framing supports ultimate positioning of third person actionable contributions to theory and practice.

Insider action researchers need to demonstrate competence in action research: how have they engaged in second person practice with the relevant stakeholders of the core project and the thesis project through a rigorous, reflective and relevant engagement on the purpose and rationale for the *core* action and the *thesis* research. They must describe how the methodology and methods of inquiry defined the roles played by the researchers and how they contracted with the organisation. They need to describe the collaborative process of the framing and re-framing of the *thesis* question as the project evolves. They need to show where the design of methods for data generation and collection informed the planning of cycles of action and reflection, and how collaborative relationships were built. Finally, they need to present a narrative of the events, including intended and unintended outcomes.

The above suggests that the essence of the insider action research project builds on the assumption that the *thesis* research question is not fixed. It is a point of departure for a dynamic inquiry process. The nature of the changing context of living systems is such that most field-based research requires agility, and the writing of projects needs to reflect the evolutionary nature of the research question (MacIntosh et al 2016). An insider action research that is in tuned with the context, an integral part of doctorateness requires the competence to facilitate and capture the evolvement of the *thesis* research question.

Competence in presentation of the research requires an ability to demonstrate clearly how second person inquiry/practice has challenged insider action researchers both personally and professionally. These challenges encourage the personal reflection and self-learning characteristic of first person inquiry/practice. So, insider action researchers need to demonstrate their first person practice, through showing how they reflected on their experience, and how they were challenged in their modes of thinking and engaging in the second person practice with others.

Competence in presentation requires also that the researcher can communicate the complexity of the *core* project simply. There needs also to be a competence in presenting the rigorous and relevant theory-based reflections and contributions, in ways that are understandable by practitioners and academics. The combination of second and first person inquiry/practice forms the basis for the contribution of actionable knowledge from the *thesis* project to a wider community of practitioners and academics beyond those directly involved. This third person inquiry/practice requires that the researcher identifies and accommodates the differing expectations and levels of pre-understanding of the groupings in this wider community.

In summary, doctorateness in insider action research requires that doctoral researchers need to demonstrate how they have engaged in first, second and third person inquiry/practice. It is the second person inquiry/practice that is central in the *core* project. Without the interaction with others, the basis for first or third person inquiry/practice is missing.

As they engage in first, second and third person inquiry/practice, doctoral students undertake a research journey to a research-based understanding of the issue in practice from within their discipline (or across the disciplines relevant to their research focus). The end point of the journey is a coherent thesis which demonstrates a synergy, as illustrated in figure 1. The dynamic nature of the journey means that there are differences in first-, second- and third-person inquiry/practice, among the cycles in the research and in the linkages among the cycles. There is also difficulty in predicting the point at which there might be a contribution, and there is always the potential for the late emergence of critical insights. The demands of quality requires that they need to demonstrate reflection on, and analysis of, the emerging narrative in the light of experience gained, judgements made, interactions and the theory. Finally they extrapolate to a broader context and articulate the proposed contributions to both theory and practice. It is in this synergistic and dynamic nature of the journey that difference from the traditional notion of doctorateness might be seen.

Doctorateness becomes apparent only when examiners and other readers can recognize contribution and synergy within a thesis. However, this synergy, illustrated in figure 1, is not a final fix associated with the notional "write-up". Rather, the demonstration of competences in research, discipline knowledge and in the presentation of the thesis argument is built in as the research progresses and unfolds through second and first person inquiry/practice, and is undertaken with attention to rigour, reflection and relevance. As Coghlan (2007) argues, both the second- and first-person practice and learning are presented as integrating the entire work and giving it its integrity. This takes us back to the vignette at the outset of this article where the researcher demonstrated his doctorateness in these relatively simplistic terms. This demonstration, based on the thesis document and the viva, and the corresponding recognition by the examiners forms the basis for our response to Poole's question (2015) as to whether doctorateness is a characteristic of the thesis document, the candidate or both. In our view, the construct of first/ second/third person inquiry/practice points clearly to doctorateness being characterised by both. As illustrated in Table 2, the thesis research column captures the engagement of the researcher with their own learning as candidate in the first person, with the community of practice as candidate in the second person, and with the framing of the emergent knowledge in the thesis document by the candidate in the third person.

9. Conclusions

As the doctoral research undertaken through insider action research proliferates, and as the action research community continues to develop its understanding of the theory and practice of insider action research, it is timely to offer a contribution as to what might constitute doctorateness in insider action research. The idea at the heart of this paper is the way in which insider action research can be understood to serve as a foundation for doctorateness and the tensions and dilemmas, as well as the opportunities that this presents for doctoral researchers. Exploring this idea is timely, not least because of the changing nature of doctorates internationally and the challenges that such changes present to the academic community, but also in the opportunities for doctoral candidates to research within communities of practice of which they are members.

In this article we have explored doctorateness in insider action research by grounding it in Zuber-Skerritt and Perry's notion of the parallel *core* and *thesis* projects. We have grounded our reflection on those projects in the core tenets of action research, communities of practice and of inquiry, and the three modes of inquiry. We have illustrated our conceptualisation in a framework which integrates prior thinking on the components of doctorateness with the specific characteristics of insider action research. We have concluded with a notion of a particular synergy among deep discipline knowledge, competence in research and competence in presentation as a basis for demonstrating doctorateness in insider action research. This article offers one lens for extending the framing of what doctorateness might mean and hopefully is a stimulus for further first, second and third person exploration.

References

Atienza C. M. (2017). Building organizational identity: An insider action research from a founder's viewpoint. *Systemic Practice and Action Research*, 30: 569-592. DOI:doi.org/10.1007/s11213-017-9410-2

Coghlan D. (2007). Insider action research doctorates: Generating actionable knowledge. *Higher Education*, 54: 293-306. DOI: doi.org/10.1007/s10734-005-5450-0

Coghlan D. (2008). Authenticity as first person practice: An exploration based on Bernard Lonergan. *Action Research*, 6: 351-366. DOI: doi.org/10.1177/1476750308094649

Coghlan D. (2013). Messy iterative groping in the swampy lowlands: Challenges and methods for insider scholar-practitioners. In Shani A. B. (Rami), Noumair D., Pasmore W. A. & Woodman R. (eds.) *Research in organizational change and development,* (vol 21, pp. 121-147). Bingley: Emerald. DOI: doi.org/10.1108/s0897-3016(2013)21

Coghlan D. (2019). *Doing action research in your own organization*. 5th ed. London: Sage.

Coghlan D. & Brannick T. (2014). *Doing action research in your own organization*. 4th ed. London: Sage.

Coghlan D. & Shani A. B. (Rami) (2008). Collaborative management research through communities of inquiry. In Shani A. B. (Rami), Mohrman S. A., Pasmore W. A., Stymne B. and Adler N. (eds.) *Handbook of collaborative management research* (pp. 601-614). Thousand Oaks, CA: Sage.

Coghlan D. & Shani A. B. (Rami) (2015). Developing the practice of leading change through insider action research: A dynamic capability perspective. In Bradbury H. (ed) *Sage handbook of action research*. 3rd ed. (pp 47-54). London: Sage.

Coghlan D. & Shani A. B. (Rami) (2018). *Conducting action research for business and management students*. London: Sage.

Coghlan D., Shani A. B. (Rami) & Roth J. (2016). Institutionalizing insider action research initiatives in organizations: The role of learning mechanisms. *Systemic Practice and Action Research*, 29: 83-95. DOI: doi.org/10.1007/s11213-015-9358-z

Coghlan D., Shani A. B. (Rami), Roth J. & Sloyan R. (2014). Executive development through insider action research: Voices of insider action researchers. *Journal of Management Development,* 33: 991-1003. DOI: doi.org/10.1108/JMD-06-2012-0072

Graham-Cagney A., Coughlan P. & Andrews L. (2012). Doctoral education at the 'eye' of the perfect storm. *Paper presented at the 4th Biennial Threshold Concepts Conference and 6th NAIRTL Annual Conference*, Trinity College Dublin, June 27-29

Hart H., Kylen S. F., Norrgren F. & Stymne, B. (2004). Collaborative research through an executive Ph.D. program. In Adler N., Shani A. B. (Rami) & Styhre A.(eds). *Collaborative research in organizations* (pp. 101-116). Thousand Oaks: Sage.

Holian R. & Coghlan D. (2013). Ethical issues and role duality in insider action research: Challenges for action research degree programmes *Systemic Practice & Action Research,* 26, 399-415. DOI doi.org/10.1007/s11213-012-9256-6

MacIntosh R., Bartunek J. M., Bhatt M., & MacLean D. (2016). I never promised you a rose garden: When research questions ought to change. In: Shani A. B. (Rami) & Noumair D. (eds), *Research in organizational change and development,* (vol 24, pp. 47-82). Bingley: Emerald. DOI: doi.org/10.1108/s0897-301620160000024003

Meyer J. & Land R. (2006). *Overcoming barriers to student understanding: Threshold concepts and troublesome knowledge*. Abingdon: Routledge.

Pasmore W.A., Woodman R. & Simmons A.L. (2008). Toward a more rigorous, reflective, and relevant science of collaborative management research. In: Shani, A. B. (Rami) Mohrman S. A., Pasmore W. A, Stymne B, and Adler N. (eds.), *Handbook of collaborative management research,* (pp. 567-582). Thousand Oaks, CA: Sage. DOI:doi.org/10.4135/9781412976671.n27

Poole B. (2015). The rather elusive concept of 'doctorateness': a reaction to Wellington. *Studies in Higher Education*, 40: 1507-1522. DOI: doi.org/10.1080/03075079.2013.873026

Roth J., Shani A. B, (Rami) & Leary M. (2007). Facing the challenges of new capability development within a biopharma company, *Action Research*, 5: 41-60. DOI:doi.org/10.1177/1476750307072875

Schein E. H. (1999). *Process consultation: Building the helping relationship*. Reading, MA: Addison-Wesley.

Shani A. B. (Rami) & Docherty P., (2003), *Learning by design: Building sustainable organizations,* Oxford*:* Blackwell Publications.

Shani A. B. (Rami) & Mohrman S. A. (2008). The multiple voices of collaboration. In: *Handbook of collaborative management research* ed. In Shani A. B.(Rami), Mohrman S. A., Pasmore W. A., Stymne B., & Adler N. (eds.). *(*pp. 531-538). Thousand Oaks, CA: Sage. DOI: doi.org/10.4135/9781412976671

Trafford V. N. & Leshem S. (2008). *Stepping stones to achieving your doctorate*. Maidenhead: Open University Press.

Trafford V. & Leshem S. 2009. Doctorateness as a threshold concept**.** *Innovations in Education and Teaching International,* 46: 305-316.

Wellington J. (2013). Searching for 'doctorateness. *Studies in Higher Education*, 38: 1490-1503. DOI: doi.org/10.1080/03075079.2011.634901

Wenger E. C., McDermott R. & Snyder W. C., (2002). *Cultivating communities of practice: A guide to managing knowledge*, Cambridge, MA: Harvard Business School Press.

Williander M. & Styhre A. (2006). Going green from the inside: Insider action research at the Volvo Car Corporation', *Systemic Practice and Action Research*, 19: 239-252. DOI:doi.org/10.1007/s11213-006-9015-7

Zuber-Skerritt O. & Perry C. (2002). Action research within organisations and university thesis writing. *The Learning Organization*, 9: 171-179. DOI:doi.org/10.1108/09696470210428895

Zuber-Skerritt O. & Fletcher M. (2007). The quality of an action research thesis in the social sciences. *Quality Assurance in Education*, 15: 413-436. DOI:doi.org/10.1108/09684880710829983

About the Authors

David Coghlan is a Professor Emeritus and Fellow Emeritus at the Trinity Business School, Trinity. College Dublin, Ireland. He specializes in organization development, action research and action learning and is active in these communities internationally. He is the author of several books and over 150 articles and book chapters. His most recent books include *Action Research for Business and Management Students* (with Rami Shani, (Sage, 2018) and *Doing Action Research in Your Own Organization* (5th ed. Sage 2019).

Paul Coughlan is Professor in Operations Management at Trinity Business School, Trinity College Dublin, Ireland. His research interests include continuous improvement of manufacturing and product development practices, services innovation, action learning, action research, and the commercialization of university research. He and David Coghlan are co-authors of *Collaborative Strategic Improvement through Network Action Learning: The Path to Sustainability* (Edward Elgar, 2011).

Abraham B. (Rami) Shani is Professor at Orfalea College of Business California Polytechnic State University. He is author, co-author and co-editor of over 20 books and 80 articles. Notable works include: *The Handbook of Collaborative Management Research* (Sage, 2008) the *Research in Organizational Change and Development* series (Emerald) the *Organizing for Sustainable Effectiveness* series (Emerald), and *Action Research for Business and Management Students* (with David Coghlan, Sage, 2015).

Authors' Addresses

David Coghlan
Trinity Business School,
Trinity College
Dublin 2. Ireland.
dcoghlan@tcd.ie

Paul Coughlan
Trinity Business School,
Trinity College
Dublin 2. Ireland.
coughlnp@tcd.ie

Abraham B. (Rami) Shani
Orfalea College of Business
California Polytechnic State University,
San Luis Obispo, CA, USA
ashani@calpoly.edu

A Collaborative Practitioner Inquiry into Societal and Power-Relational Contexts of an Activist Writing Community's Textual Events

Amir Kalan, Parisa Jafari and Mahdyar Aghajani

Abstract
This article describes experiences with a community literacy approach to writing instruction in a cultural studies and literary criticism workshop in Tehran, Iran (2009-2014). The writers narrate the process of writing a book undertaken by a group of Iranian feminists, who chose to write about and critique dominant discourses in Iranian hip hop, in an attempt to start a conversation with young underground Iranian rappers. Adopting collaborative practitioner inquiry, the researchers discuss different steps of the process of writing and publishing the book, and also the pitfalls and challenges that they encountered in the project and the ensuing interventions. In the course of sharing their reflections, the writers highlight the sociocultural and power relational contexts of their writing process to sensitise writing instructors to the often invisible social and political layers of the act of writing.

Keywords: community literacy, community publishing, writing studies, practitioner inquiry

Una indagación practicante colaborativa en contextos societales y relacionales de poder en eventos textuales de una comunidad de escritores activistas

Resumen
Este artículo describe experiencias con un enfoque de alfabetización comunitaria para la instrucción de la escritura en un taller de estudios culturales y crítica literaria en Teherán, Irán (2009-2014). Los escritores narran el proceso de escribir un libro por parte de grupo de feministas iraníes, que eligieron escribir y criticar los discursos dominantes en el hip hop iraní en un intento por iniciar una conversación con jóvenes raperos iraníes del underground. Adoptando la indagación practicante colaborativa, los investigadores discuten diferentes pasos del proceso de la escritura y publicación del libro y también los escollos y los desafíos que encontraron en el proyecto y en las consiguientes intervenciones. En el transcurso de la socialización de sus reflexiones, los escritores resaltan los contextos socioculturales y relaciones de poder del proceso de escribir para sensibilizar a los instructores de escritura sobre las capas sociales y políticas a menudo invisibles del acto de escribir.

Palabras clave: alfabetización comunitaria, publicación comunitaria, estudios de escritura, indagación practicante.

Introduction

This article describes a community literacy approach (Coogan 2006; Flower 2008; Higgins, Long, & Flower 2006) to writing instruction in a cultural studies and literary criticism workshop in Tehran, Iran (2009-2014). We here narrate the process of writing and publishing a book by a group of Iranian feminists, who chose to write about and critique dominant discourses in Iranian hip hop, in an attempt to start a conversation with young underground Iranian rappers. The members of our writing community deemed this dialogue crucial because the rappers and hip hop artists addressed by the book, although marginalised by political and sociocultural dynamics in the country, had a significant impact on Iranian youth subcultures. This partnership, we hoped, would inform the hip-hop community about women's issues and, in return, would help the activists in the writing workshop learn more about discourses prevalent among the youth. In this article, three members of our workshop relate our experiences with the process of writing and publishing a collection of articles entitled *Persian Hip Hop: Writing as Social Action*, which has been downloaded more than 20,000 times to date.

Persian Hip Hop: Writing as Social Action is a collection of essays in Persian about the sociocultural dimensions of Iranian hip hop and its impact on Iranian youth. The book, in particular, focuses on the artistic legacy of the groundbreaking album *The Asphalt Jungle* (2006), written and performed by Soroush Lashkari and produced by Mahdyar Aghajani. There is a consensus in the Iranian artistic community that the quality achieved in this album made the rapid development of Iranian hip-hop possible. Adopting a variety of social studies and literary criticism approaches, the writers of our community wrote about how Iranian rap songs were written, what sociocultural and political discourses informed Persian hip hop, and how Iranian rappers challenged more conservative ideological paradigms in Iranian society. All through the workshop, the writers were in conversation with rapper Soroush Lashkary (known as Hichkas[1]) and Mahdyar Aghajani, the producer of the album.

In this article, the writing instructor of the workshop, Amir, reflects on his writing pedagogy, the challenges involved in teaching an activist writing workshop, and his positionality as a teacher of a workshop made up of educated feminist activists. Parisa, a women and children's rights activist and one of the writers of the workshop, discusses the process of writing the book chapters and the writers' identity negotiation as a result of a role shift from "writing students" to "professional" writers to be read by an audience of thousands. Finally, Mahdyar, an influential figure in Iranian hip-hop culture, narrates our struggles with publishing the book. Before sharing our narratives about the process, we highlight our research questions and discuss our theoretical frameworks and research methods.

Significance of the Project

Our inquiry contributes to the fields of community literacy, critical literacy education, and composition studies in a number of regards. It adds to the pool of empirical studies aiming

1 *Hichkas* is Persian for Nobody.

to comprehend the pedagogical potentials of community literacy with a focus on sociopolitical dimensions of collaborative writing and community publishing. Sharing our experiences, we also propose that non-mainstream qualitative research approaches such as practitioner inquiry (including action research) and narrative inquiry can help us better understand the complexities of authentic writing projects and their sociocultural and power relational circumstances. Moreover, this report is an example of international experiences with community-engaged writing for an English speaking audience, providing them with the opportunity to see how international educators and activists make sense of textual engagement and employ writing as a tool of activism for social change.

Dominant writing pedagogies in North American educational structures often regard writing as an individual activity and a form of cognitive engagement. Written texts, however, are the products of complicated social, cultural, and political networks (Atkinson 2003; Dobrin, Rice, & Vastola 2011; Kent 1999; Kent 2011). An emphasis on the sociocultural and sociopolitical contexts that create texts can challenge dominant pedagogical practices, which typically ignore the social dimensions of text generation and which, in insular traditional classrooms, approach writing as a skill to be developed individually. Community literacy can create new pedagogical possibilities by re-defining written texts as artifacts created by sociocultural and sociopolitical interactions and by raising doubt about the traditional classroom as the ideal venue for literacy teaching and learning (Couture 1999; Ewald 1999; Petraglia 1999). The confines of the classroom have been designed to separate students from everyday social interactions to listen to teachers as the knowers of the *techne* (or technique) of writing (Hawk 2004). Community literacy can restore connections between writers and society.

In terms of research, community-oriented writing pedagogy calls for alternative qualitative research methods that can shed light on the complex dimensions of collaborative writing and publishing, which often remain hidden in textual and quantitative analyses of written products (Petraglia 1999). Multiple hermeneutic, social, cultural, and political layers of writing are so complicated that the genealogy and impact of each textual product can only be understood as subtly rooted in their uniquely local contexts. Such complexity defies generalisability, revered by traditional research methodologies. Thus, this article in line with other community research projects (see for instance, Higgins, Long, & Flower 2006), proposes that empirical research on community-engaged literacy can benefit from critical action research (Carr & Kemmis 2009; Morrell 2006), teacher research (Ballenger 2009; Lytle 2000; Lytle & Cochran-Smith 1992), practitioner inquiry (Cochran-Smith & Lytle 2009), collaborative literacy research (Simon & Kalan 2016), and narrative inquiry models (Clandinin 2006), which, as will be explained in more detail in the Inquiry Approach section, are better equipped to deal with the local, unique, and often messy nature of teaching and learning contexts.

Guiding Questions

In this project, we have explored the sociocultural and sociopolitical dimensions of collaborative writing. We tried to see how writing could bring together communities and contribute

to social change. Also, we wanted to know what societal and power relational factors encouraged or interfered with text production and distribution. During the course of our workshop and later in the process of publishing our book, we had to wrestle with many questions in response to a variety of dissonant moments arising from the challenges we faced. These questions, which directed our inquiry, can be summarised as:

1 How can we use "writing" as a tool for learning, exploration, and social connection (as opposed to prioritising argumentation) in a writing community made up of a group of activists?
2 How can we connect our writing community to the social, cultural, and political life in Tehran, and also to other communities?
3 What cultural practices, social interactions, power differentials, and discursive conventions form and enrich the texts students produce through collaborative writing and publishing?

The complexity of these questions and the unpredictable dynamics of the project, from brainstorming of ideas to online distribution of the book, had us organically adopt critical community literacy as our interpretive framework and practitioner inquiry as our research approach, about both of which we will speak in more detail in the following sections. In this sense, the workshop was not approached as a research site; nor did the instructor of the workshop enter the community with a research design in hand. Reflecting upon our activities grew out of the members' desire to make sense of the project as the sociocultural and sociopolitical dimensions of our activities became more and more visible.

Interpretive Framework

Out project connects with a variety of inquiry fields and can be discussed through different theoretical lenses. It, for instance, lends itself to feminist theory, media studies, and hip hop studies. This report, however, offers our reflections in accordance with conceptualizations in *community literacy* and *community publishing* (Coogan 2006; Flower 2008; Higgins, Long, & Flower 2006; Long 2008; Mathieu, Parks, & Rousculp 2011; Parks & Goldblatt 2000; Peck, Flower, & Higgins 1995), particularly when these concepts are considered as forms of *critical literacy education* (Freire & Macedo 1987; Janks 2013). This theoretical lens can help us highlight the pedagogical aspects of the project, in order to bring attention to the sociocultural and power relational layers of writing, which are often invisible and could remain untapped in the process of teaching and learning. In other words, as "Jeffrey Grabill (2001) pointed out … our conceptualisation of community literacy was, in one sense, an invitation for others in composition/rhetoric to locate the profession's work more broadly in the public realm" (Higgins, Long, & Flower 2006, p. 9).

Centralised curricula aim to homogenise students' literacy discourses and literate practices by having students engage with canonical texts through uniform literacy activities. In writing specifically, the dominate practice is engagement with the rhetoric of assertion in simplified forms of persuasive writing (Olson 2002), typically for an audience of one: the teacher. An unpleasant side effect of this factory model approach to writing instruction is

the elevated status of the traditional classroom as the only, or at least the dominant, learning venue, where the students can drill "great" writing under teachers' panoptic supervision. Dominant writing pedagogies, thus, sever the act of writing from its sociocultural and political contexts, and turn it into a context-less technical drill. Community literacy pedagogy, in contrast, constructs authentic writing circumstances by putting writing back in meaningful social contexts, by generating collaborative action, and by providing voice for minoritised communities to impact societal power relations.

Community literacy has been mobilised in different capacities (see for instance, Cairney, Ruge, & Training 1998; Cella & Restaino 2012; Coogan 2006; Flower 2008; Grabill 2001; Julier 2001; Long 2008). Our view of community-engaged literacy is closer to theorisations that underline the potentials of collaborative writing and publishing in terms of their impact on communities and their discourse practices. For instance, Peck, Flower, and Higgins (1995) described community literacy as social change through dialogic inquiry:

> First and foremost, community literacy supports social change. … A second aim of community literacy is to support genuine, intercultural conversation. … A third aim of community literacy is to bring a strategic approach to this conversation. … A fourth aim of community literacy is inquiry: to openly acknowledge … the history of failed conversations, but to purposefully examine the genuine conflicts, assumptions, and practices we bring to these new partnerships. (p. 205)

The same authors in a follow-up report of their project after more than a decade offered an updated version of their understanding of community literacy:

> Our approach to community literacy … uses writing to support collaborative inquiry into community problems; … calls up local publics around the aims of democratic deliberation; … and transforms personal and public knowledge by re-structuring deliberative dialogues among individuals and groups across lines of difference. (Higgins, Long, & Flower 2006, p. 10)

Consistent with these frameworks, our project was intended to create systematic dialogue across different discourse communities between a group of women's rights activists and a circle of hip hop artists. The conversation between these communities was rigorously critical and functioned as a medium of inquiry for both communities into their discourses and belief sets. This exchange, moreover, was made public through the circulation of what the workshop members wrote in order to impact societal discourses regarding women, and also the status of hip hop in contemporary Iranian culture. Hence, our writing community used writing as a tool of inquiry, a manner of communication, and a vehicle for sociopolitical critique.

With this approach a key question that we had to address was how to disseminate the members' writings, also a major concern in scholarly conversations about community literacy: "[Community literacy should] support personal and public transformation through circulation of alternative texts and practices" (Higgins, Long, & Flower 2006, p. 11). The publishing industry in Iran is heavily controlled by the government, which requires all books to be examined before publication for an official permit. Both the women's rights activists and the hip hop artists were underground communities functioning without required official authorisations, and thus acquiring a governmental permit was impossible. Even if we received an official publication permit by some miracle, we would have to deal with publishers who might not be interested to support a group of feminist writers, or who might not consider

hip hop worthy of serious attention. Even in case of an agreement with a publisher, the editing process would change the essence of our work because of economic and political considerations. We, as a result, thought a *community publishing* approach would be an empowering course of action in terms of our purposes regarding social critique:

> In the case of community publishing, the medium is also the message. Unlike commercial publishing, community publications are typically produced, edited, and designed *by* community writing groups or organisations. They often have editorial control of content, fonts, images, and cover design. It is this self-directed, unmediated sense of control that speaks to the essence of publication—as effort to tell their truth unfiltered by established organizations, such as educational, governmental, or religious authorities. (Mathieu, Parks, & Rousculp 2011, p.2)

Community publishing also would let us utilise the digital talents of the hip hop community and their experiences with online distribution of creative and artistic works. The online open access to the book would help the community communicate with larger numbers of Iranian youth. Engagement with the publishing process thus would let the members become "participant[s] in a larger cultural and political project of publishing and circulation, struggling over collective representation and rights" (Mathieu, Parks, & Rousculp 2011, p.13).

One can make better sense of community literacy and publishing by reflecting on connections between these concepts with larger paradigms of critical pedagogy and critical literacy (Freire & Macedo 1987; Janks 2013; Janks 2000). According to these paradigms, literacy engagement includes more than technical interaction with language because linguistic performance is a sociocultural performance, and thus connected to individuals' identities and positionalities in the world. If reading and writing are connected to people's positions in the world, literacy is by nature power relational since it figures as a power differential in the relationships between teachers and learners, learners and their peers, and learners and society. Because power relations connect literacy and society, literacy education can be transformational. As a result, educators should see students as agents of change, and provide them with access to space, discourses, and communication channels for their voices to be heard.

Inquiry Approach

Because of the complexities involved in community writing: including its local nature, its transformative tendencies, and questions about positionality, researchers and educators have often used different forms of practitioner research, such as action research (see for instance, Higgins, Long, & Flower 2006), to reflect on their projects and report their experiences. Similarly, our inquiry methods were informed by the principles of practitioner inquiry (Cochran-Smith & Lytle 2009; Lytle 2000; Lytle & Cochran-Smith 1992) and collaborative literacy research (Simon & Kalan 2016). Practitioner inquiry emphasises the epistemic privilege of teachers and students as *insiders*. Moreover, most forms of practitioner inquiry are interested in societal and power relational aspects of education:

> [M]ost versions of practitioner inquiry share a sense of the practitioner as knower and agent of educational and social change. … Many of the variants of practitioner inquiry also foster new kinds of social relationships that assuage the isolation of teaching and other sites of practice. This is especially true in inquiry com-

> munities structured to foster deep intellectual discourse about critical issues. (Cochran-Smith & Lytle 2009, p. 37)

Simon, Campano, Broderick, and Pantoja (2012), similarly, emphasised that critical action was an important feature of practitioner inquiry:

> [P]ractitioner research often involves creatively resisting dominant ideologies and working through contradictions. Generating literacy theories and pedagogical alternatives within the context of institutions marked by normative limits: as well as opportunities for developing meaningful relationships and more ethical arrangements – involves ongoing struggle. (p. 10)

This study was conducted by the teacher of the workshop (Amir), one of the students (Parisa), and the producer of *The Asphalt Jungle* (Mahdyar), who helped the writers with editing the articles and publishing the book. Practitioner inquiry, as a methodological orientation, would help us underline the significance of the knowledge we would generate through this study as insiders. In the collaboration between our writing community and hip hop artists and rappers: and also other professionals and artists who helped us with the project, we were cognizant of the concerns of collaborative literacy research:

> What role might collaborative inquiry play in helping individuals make sense of texts? How can teachers and students in a research context work together across differences to gain more nuanced understandings of our shared social world? … What are the potentials of collective research of this nature for actualising curricular, pedagogical, and social change? (Simon & Kalan 2016, p. 400)

All through the project, we followed an inquiry model known in practitioner research as *The Circle of Inquiry* (Pincus 2001). This model describes the process of inquiry-oriented teaching as follows. A *dissonant moment*, an unexpected event, or a strange occurrence in the site makes the instructor or other community members uncomfortable. This moment of dissonance creates questions that require a conscious and systematic inquiry stance. The learning community studies the situation, reflects upon it, and takes action accordingly. This circle, however, is not completed in one clear cycle or in linear progression, as suggested by classical action research. This process occurs continuously in new cycles. It also might be interrupted at any point and restart again later. This model of inquiry, with its emphasis on the local, messy, and unpredictable nature of teaching, lent itself well to our community's writing practices and literacy evented, which: as opposed to the defined direction of a pre-built curriculum, were mainly the result of new social interactions and the students' freedom to alter the lessons based on their experiences, visions, and agendas.

Next to the key function of *dissonant* or "puzzling moments" (Ballenger 2009, p. 5) in inquiry cycles, practitioner inquiry also employs concepts such as *legacy*, *community*, and *neighbourhood* (Lytle 2000) to highlight the local nature of teaching and learning and the importance of the context of research and practice. The concept *legacy* underlines the importance of practitioner researchers' backgrounds, and the way their professional and intellectual legacies connect to their practice and research. It is significant that practitioners, as *knowers* and knowledge generators immersed in practice and research sites, think of their own social, cultural, and political positionalities; identify their own perspectives; and are conscious about their epistemological stance in relation with their local and indigenous questions.

Community hosts the members of the site of practice/research who benefit from teaching and learning that occurs on the site and also from systematic reflection on practice.

Learners, their peers, their families, teachers, policy makers, and other supporting agents such as local artists, activists, and intellectuals are part of *community*. *Community* also involves the discourses through which the members speak and by which they make sense of the world. Communities are by no means isolated and: consciously or unconsciously, follow one another's sociocultural and sociopolitical existences in the society in which they live. Communities interact, co-operate, and have frictions. Effective educators think about a community's needs and visions in relation with its neighbouring communities. Accordingly, it is essential that reflective practitioners pay due attention to the concept *neighbourhood* and ask questions such as: In what neighbourhood is the community situated? In what ways does our research matter to that neighbourhood? Who is the audience of our research? Who are we trying to communicate with?

A focus on *legacy, community* and *neighbourhood* is crucial in our study inasmuch as the production and the distribution of the book would not have happened without the coming together of the instructor, the writing community, and the Iranian hip hop community, through a desire for cross-community dialogue. In the same virtue, the present study is an example of collaborative inquiry with the active involvement of the said parties. After an explanation of our methods below, we will again use concepts *dissonant moments, legacy*, *community*, and *neighbourhood* to frame the narratives that we will present as the findings of the study.

Methods

Our interactions from introductory writing lessons to the publication of the book continued over five years (2009-2014) in multiple sites including museums, art galleries, book stores, informal gatherings, online forums, and also a traditional classroom where all the members of the community met once a week. Moreover, during the process of publishing the book, the instructor of the workshop (now acting as editor) had numerous one-on-one conferences with the writers in the editing process. On the other hand, he was regularly in conversation with artists and professionals that helped us with the technical aspects of the project such as designing the book cover and making our book trailers. Thanks to the variety of locations and multiple dimensions of the project, we collected a rich body of data in the following forms:

1 Teaching logs: Lesson plans, notes, handouts, books, and other teaching preparation materials.
2 Observation and field notes: The students' interactions with the instructor and with one another. The students' engagement with educational materials for instance our readings and the cultural products we studied for analysis and critique such as paintings, films, and particularly for the purposes of writing our book: Persian rap songs.
3 Recordings: Audio recordings of all of our classroom conversations including the instructor's lessons and the students' questions following the lessons; also, audio recordings of conversations between the students and guest speakers including Hichkas, who occasionally attended our classes to listen to the initial drafts of our articles.
4 Written correspondence: All the email and social media exchanges with the writers and hip hop artists.

5 The students' writings: All the versions of the students' articles from the first drafts to the published pieces with all the changes the writers made to their drafts in response to their dialogues with the instructor and/or other students.

In order to analyse the data collected, we adopted a grounded analysis approach to the data. In our analysis, the emerging themes, including beliefs, attitudes, critical moments, incidents, interactions, and interventions that could help us construct a meaningful narrative of the developments of this project were identified and combined together in narrative format. As will be explained in more detail in the Findings section, we present our dissonant moments and hermeneutic decisions in three narratives reflecting the instructor's *legacy*, the writing *community*, and the *neighbuorhood* the writers tried to communicate with, namely the underground hip hop society in Iran. We opted for analytical methods that would help us report our findings in a narrative style, because we believed narratives would best describe the complexities of the developments of the workshop from instructing the class to publishing the book. Furthermore, drawing upon *narrative inquiry*, we would strengthen the study as far as validity and trustworthiness is concerned inasmuch as the readers would be directly in touch with the voices of the participants/practitioners. "Lyons and LaBoskey (2002) suggest that with narrative inquiry, validity rests on concrete examples (or "exemplars") of actual practices presented in enough detail that the relevant community can judge trustworthiness and usefulness" (Cochran-Smith & Lytle 2009, p. 43).

Findings as Narrative Syntheses

> Ideas about what count as data and analysis in practitioner research are often different from those of traditional modes. Autobiographical and narrative inquiry (e.g., Cole & Knowles 1995; Florio-Ruane 2001; Lyons & LaBoskey 2002), for instance, treats stories as data and certain kinds of narratives as interpretation." (Cochran-Smith & Lytle 2009, p. 44).

Borrowing from the methods of narrative research as a common approach in practitioner inquiry, we present our findings in three interconnected narratives. To describe our experiences, we also borrow from Susan Lytle's (2000) concepts *legacy*, *community*, and *neighbourhood*, as explained in the Research Approach section. In what follows, Amir in Legacy talks about how he entered the writing community as a social studies workshop instructor, and how he tapped into his professional legacy and modified his pedagogical understandings to meet the requirements of his new teaching context. In Community, Parisa: one of the writers of the workshop, offers an account of the experiences of the writing community with the process of writing the articles. Finally in Neighborhood, Mahdyar, a respected hip hop music producer, shares his narrative about the challenges involved in publishing the book. Diversifying the voices of the narrators, we have tried to include the perspectives of all the communities involved in this project. The story of the project could have been constructed in many different ways; here, however, harmonious with the theories by which we have framed this report, we craft our stories based on the dissonant moments (which we previously defined in detail) and challenges that shaped our decisions in the course of writing and publishing the articles.

Legacy: Amir

I taught English Language and Literature at the Italian School of Tehran from 2003 to 2010. During this period, I embarked on writing a textbook that drew upon literary theory and social studies, to offer a critical literacy pedagogy that moved away from lecture-based instruction towards collaborative text-generation in response to critical reading. The activities discussed in the book were inspired by my Italian school students' creative projects, which were often shared publically in accordance with the pedagogical models that I was experimenting with: approaches interested in the impact of an authentic audience on the quality of writing and other textual products. Writing the book, hence, was a strategy for me to make better sense of my instruction as well as a way to record my students' experiences. Our public poetry and fiction readings, theatrical performances, and film screening attracted the attention of the Iranians who attended our events. As a result of this cultural exchange, the managers of Rahyab, a women and children's rights NGO, invited me in 2009 to teach a literary theory workshop, inspired by the activities suggested in my textbook.

The workshop was packed with women and (some) men who had been active at the centre in different capacities. The attendees were practicing activists and were not necessarily in the workshop to learn writing or feminist theory, but were more interested in exploring new hermeneutic and communicative manners to amplify their voices and multiply their social connections. This expectation also matched my vision of a literary theory and social studies pedagogy, which sought an extension of theory through problem-posing education, praxis, active text production, and dissemination. With the harmony between our views of the purpose of the class, our one-week workshop turned into a writing community that would publish the book we discussed in this study and whose members have stayed together up to now.

Considering the nature of the community and the activists' backgrounds, I decided that, to develop my pedagogy for this class, I needed to reflect upon two key dimensions: first, how we can employ "writing" not only to record our literary and textual experiences, but also think of "publishing and dissemination" as an important component of critical literary theory. In this sense, we not only had to critically read and write, we also needed to move further and distribute our textual products. This blueprint would broaden one's view of "writing" as an isolated individual intellectual exercise and would make us think of textual products as artifacts wrought by power relations, social interactions, discursive conventions, and cultural practices: especially collaborative textual events.

Second, I needed to reflect on how my pedagogy was connected to my positionality. All through our collaboration, up to and including this moment when we are writing this article, I have had to struggle with some important questions. How do I position myself as a male teacher among a group of women activists? How do I position myself in my interactions with Iranian rappers and hip hop artists? How far should we go in challenging legal and societal norms: considering the fact that hip hop is banned in Iran, and the activities of the Rahyab Institute challenged official guidelines from time to time? How are we going to report the project in Western academia considering the prevalence of misinformed views of Iranian cultural life in the West? How can we avoid presenting this project as a victory nar-

rative but only one story of the extremely vibrant cultural scene in Tehran? Thinking about these questions helped me regard myself as a member of the community rather than its instructor. This feeling, after more reflection I realised, was not an exception in my career. I had the same feeling when I was teaching my high school students at the Italian School; however, more visible power relations in our writing community (with knowledgeable adult activists and exceptionally creative musicians) helped me more comfortably stop pretending that I was the possessor of the knowledge of literary theory and a "writing" connoisseur; instead, I more openly identified as a hermeneutic designer looking for ways to amplify my students' voices.

Community: Parisa

Our workshop was one of the cultural programmes which were held in the Rahyab Institute. The Rahyab Institute was a women and children's rights organisation that tried to promote gender awareness and support children in need through cultural activities. The primary goal of organising the literary criticism and cultural studies workshop, which resulted in the publication of the book, was studying feminist literary lenses more systematically. As feminist and cultural activists, we believed that knowing about literary criticism approaches could help us consider gender issues in cultural products. However, after finishing the feminist theory workshop, some of us decided to continue the workshop to learn more about other approaches as well. This second workshop included structuralism, Marxist theory, postcolonial criticism, and deconstruction. While most of the participants were interested in cultural issues, the class was not monolithic; we were in different age groups and had different socioeconomic backgrounds from housewives to humanities PhD students and from teenage high-schoolers to professional writers. The diversity in our workshop had a significant impact on the process of learning. It provided an opportunity for us to learn how we could engage in dialogue with people with different opinions.

One of the first things we learned in the workshop was how to collectively think critically when reading a text. When we read together, we felt more confident to unearth social and political ideologies hidden in the text. At the same time, however, it was sometimes challenging for us to criticise the texts that were part of the Persian literary canon, which we had been brought up to cherish. Yet during the workshop we became more conscious about how literary canons were formed and how they reinforced dominant discourses in society. We also discussed why society appreciated some cultural products while marginalising others.

Why did we decide to write? Initially, we chose to write about what we read merely as a practical way to understand how we could apply literary criticism approaches; we wanted to learn by doing. We typically wrote short passages about canonical works, and had whole class conversations where we received feedback from our peers. Engaging in this activity, over time each of us adopted a specific literary criticism lens which we developed an interest in. Moreover, we experienced how the process of writing could be enriched by collective thinking about critical issues. Also, we had to organise our writing effectively to communicate our views with other group members and how to make helpful comments on other students' work.

The positive outcomes of focusing on writing motivated us to take one step further by developing a writing project about a specific body of literature. To start the project, the main question was what kind of literature we should focus on. To make a decision, we tried to recall the primary goal that encouraged us, as cultural activists, to participate in a literary criticism and social studies workshop. In our sessions we had discussed how societal power relations favoured certain literary genres and cultural products. We had also become more sensitive about texts and genres marginalised by sociopolitical trends and underestimated by prominent voices in mainstream culture; for instance, women's literature and texts penned by ethnic minorities in Iran. Persian rap, gaining rapid popularity among the youth at the time, was also another example of cultural products that frequently appeared in our conversations during the workshop mainly for its relevance and impact. Despite the growing popularity of Iranian hip hop, there was complete silence about it among music and literary critics. Many even attacked the genre as immoral, decadent, and corrupt. Some Persian rappers, from our perspective as a feminist community, were indeed reproducing patriarchal ideas prevalent in society, but there was more to Persian hip hop such as the potential to give the Iranian youth:including Iranian girls, a voice. These complexities motivated us to focus on hip hop in our project.

Writing about hip hop, we could also challenge the conventional boundaries that divided literature to high and low-brow, the latter being the place where most of women's literature is deemed to be. Thus, we decided, to focus on Hichkas' *The Asphalt Jungle*, the album whose success had made the denial of the impact of Iranian hip hop on youth's minds almost impossible. Despite our excitement about the writing project because of its novelty, writing about Hichkas' rap revealed some challenges especially for the students who were not familiar with hip hop. Some of us had to listen to the music that they were not particularly interested in. Nevertheless, the fact that we wanted to critically analyse the rap songs totally changed the way we listened to Hichkas. Now we were not merely consuming the music, although critically, we also had to focus on words and themes related to our critical approach in order to create our own texts.

But the biggest challenge rose when we decided to invite Hichkas to join our workshop to listen to our earlier drafts for his feedback. Inviting a banned underground rapper to a feminist NGO proved to be a problematic move for some of the managers of the centre. They feared possible negative consequences for the office, but fortunately after some lengthy meetings they at last agreed. The resistance that we felt against engagement with hip hop artists even within our own institution made us more confident that our project was, indeed, socioculturally significant. As far as writing is concerned, Hichkas' presence in the workshop influenced our writing process immensely. We were no longer writing to learn literary criticism; we were writing to communicate our views to a cultural icon with significant stature.

When Amir suggested we should publish our articles as an e-book, the workshop dynamics and our writing went through another transformation. Our articles were now supposed to be read widely by the public, which propelled us to revisit our words over and over again. Every statement was now considered a discourse interacting with public beliefs and opinions. This process involved many conversations with friends, community members, and scholars. Even a proper focus on the technicalities of writing, such as forming sol-

id paragraphs and proper punctuation, was not felt as a real priority until we decided to publish the articles. We knew our writings would be scrutinised by thousands of young men and women, and there was very little room for complacency. We started the workshop to learn more about literary criticism and social studies, but writing provided an opportunity for us to turn learning into action that would impact the battle of discourses in our society.

Neighbourhood: Mahdyar

Persian hip hop is very popular among the Iranian young generation and since the Iranian Revolution in 1979, there has never been a music genre produced by young people that has reached this level of success among their peers. As a music producer, I always felt the lack of theoretical conversations about Iranian hip hop and was rather disappointed that the intellectuals and academics did not really appreciate this culturally significant phenomenon, but simply wrote it off as an unimportant form of low-brow art.

When I was approached by the writers of the workshop and invited to contribute an article, I felt excited, but I also had my doubts. A few articles had been published about Persian hip hop by that time, but unfortunately none of them were able to capture the complexities of the Iranian hip hop movement as rappers and producers like me would have wished to see. Reading those publications, I always felt the publishers were more driven by commercial or political motivations rather than a genuine interest in observing and analysing the genre for itself.

After reading excerpts from the book, Hichkas and I decided that we would like to be in conversation with this writing community. Although we did not agree with some of the views expressed in the articles, we appreciated the writers' efforts to better understand the hip hop movement and describe it for the public. It was clear that the writers were trying to have an honest and thoughtful point of view and no matter how much we agreed or disagreed with them, the book was definitely a valuable endeavour much needed for the genre. Thus, when Amir contacted me to see if I had liked the articles, I told him I would be happy to help the process as much as I could.

In the beginning of our collaboration I was only supposed to write one article for the book, but as the process of publishing the book unfolded, we faced more challenges and my responsibilities increased. For instance, I had to read the articles to correct some factual errors regarding the Iranian hip hop history and also some technical mistakes in statements that edged towards musicology. Also, I advised the writers on parts that we felt might stir up pointless dramas and controversies like paragraphs that made references to rival rappers. We did not want the book to feel as if we were subliminally "dissing" other artists.

Musical editing of the articles and, in general, dealing with the writers was probably the easier side of the work. Later, we encountered more hiccups when it came to the technical aspects of publishing and distribution of the book such as creating the book cover, making a website to launch the book, and promoting the book for more effective distribution. Many professionals and artists who initially promised to help us left the community, because either they did not take the project seriously, or they tried to impose their opinions on us and as a result faced resistance. We had lengthy conversations to see how we could

solve these issues, and almost always the solution was dealing with the artistic and technical aspects ourselves. Fortunately, I am very much used to challenges of this nature due to the lack of professional support in most of my career as a producer, and managed to be instrumental by helping with advertising the book, which involved some artistic and technical work. I designed the book cover and the website and led the book launch campaign.

The workshop members' main priority was to distribute the book to as many people as possible and making access to the content as easy as possible. Nobody was concerned with making money by selling the book, and we thought the best way to release the articles would be offering a free e-book. We did not have any funding for this project, so we had to make use of our own means for advertising and promoting the book. We decided to start the advertising campaign two weeks before the release date by launching a website, creating social media pages, and sharing two commercial videos. We made two book trailers since we calculated that the book would probably have two major target audiences: Iranian intellectuals and Persian hip hop fans or basically the young generation. Accordingly, we asked a friend to make the first video, which was more minimal and artistic to attract an older and perhaps more "sophisticated" audience and I made a more colorful and rhythmic video aimed at a younger audience.

Hichkas and I have many followers on social media and sharing the videos through our web pages attracted the attention of the people who listen to our music and the media who follow our work. Next, people started to spread the news, especially the vast network of social media pages dedicated to Iranian hip hop. After two weeks of spreading the buzz about the publication, we released it in PDF format and it immediately became one of the top social media trends in the Persian language. We definitely would not have been able to reach so many people if there were no possibility for the digital distribution of the book on social media.

I think we were successful in reaching the youth but failed to grab the attention of many other circles, some of which have enormous power in the Iranian cultural sphere. We particularly could not engage the Iranian intellectuals and academics, who did not seem to be interested in why thousands of young people downloaded and read this rather difficult book. In the same manner, mainstream musicians, mainstream feminist groups, and corporate press showed almost no interest in our book although the writing community tried their best to reach out to them.

Discussion

Hilary Janks (2000, 2010, 2013) has conceptualised a framework for critical literacy education constructed of four components: (1) power, (2) identity/diversity, (3) access, and (4) design/re-design. The model emphasises that (a) literacy education is about critical textual interaction for empowerment in literacy events, informed by students' identities and backgrounds, yet it is also about (b) gaining access to knowledges; discourses; communication channels; and academic, cultural, and/or intellectual positions. Moreover, literacy learning, as well as reading the wor(l)d, includes reconstructing the wor(l)d by re-writing, re-creating, and re-mixing texts. In this sense, teaching writing should include more than

teaching the *techne* of writing and would be more precisely defined as collaborating with students to write and publish in order to create change in their communities and hopefully society as large.

Janks' model is harmonious with theories of community literacy/publishing and practitioner inquiry: the theoretical frameworks informing this project as explained above. Community literacy regards writing as semiotic interaction propelled by sociocultural and sociopolitical factors. Practitioner inquiry, on the other hand, pictures practitioners as generators of knowledge (as opposed to technicians) and thus agents of change. Our writing community, accordingly, critically read underground rap songs, but went on to create their own texts in response to the hip hop subculture. With the above theoretical constructs in mind, we discuss some of the findings and implications of our study in what follows.

We have illustrated the major steps in the process of writing and publishing the book in ten items in Table 1. The itemisation of the process steps in this table should not be interpreted as universal strategies that would lead to the creation of socio-culturally impactful texts of high-quality; the table, instead, is only an attempt to identify significant moments when we stepped beyond traditional writing pedagogies in order to complexify our reading/writing practices and create new hermeneutic possibilities by means of consciously adding sociocultural and sociopolitical layers to our project. These practices thus would differ from classroom to classroom and from community to community.

Table 1

	Textual Events	**Sociocultural Power Relations**
A	1- In-class writing activities	Classroom conventions
	2- Homework	Classroom conventions/Teacher
B	3- Decision on a project	Society/Culture/ Politics
	4- Brainstorming (oral exchange of thoughts)	Peers/Teacher/Administrators/Families
	5- Writing the articles (3 to 5 drafts)	Meeting Hichkas/the Public
C	6- Rewriting the articles	Call for publication/Editors
	7- Content editing	Publishing process
	8- Technical (music) editing	Publishing process
	9- Copy-editing and proofreading	Publishing process
	10- Publication	Society/Culture/ Politics/ the Public

Table 1 assists us in highlighting two major pedagogical implications of our project. First, next to the column Textual Events, which represents the process of writing, we have specified Socio-cultural Power Relations in order to invite readers to look at different steps of our writing process as significantly correlated with social, political, and cultural interactions. The column Socio-cultural Power Relations is meant to emphasise the fact that the process of writing should not be reduced to individual cognitive faculties; instead, the writing process needs to be examined as the organic outcome of sociocultural and sociopolitical interactions.

Second, we have grouped the writing process steps, or textual events as we prefer to call them to avoid suggestions of universality, into three categories (A, B, C). We hope this grouping guides readers to see traditional process steps as more complicated than brain storming, first-drafting, receiving feedback, and finalising text. "A" represents common in-

stances of dominant classroom pedagogy (product and process), which sees "writing" as writing tasks in the form of classroom activities and homework. Such conventions often have students drill the physical act of writing and fail to see students as real "writers" with activist and intellectual impact. "B" in the table illustrates that our writing community members did experience the revising and editing steps that process theory advocates; nevertheless, they engaged with the process as a result of creating a genuine writing context with a meaningful project and with the prospect of publication in sight. In this manner, we did not go through the process as following a certain formula; we did so as a necessary response to a potentially impactful writing context and to an organic rhetorical situation created by social, cultural, and intellectual interactions. That is why we specified the largest number of our textual events to "C" in order to underline the importance of community publishing and dissemination. Our data suggest that the stylistic quality of the students' writing did not improve dramatically until we decided to publish the articles, not only as a pedagogical technique but to create text that mattered to the society around us.

We are aware that the context we are presenting here lends itself well to power relations oriented theories within which we have immersed the project. Indeed, collaborating with adult activists and hip hop artists might more comfortably find its way into discursive battles and ideological conflicts than many mainstream educational sites. However, although our context has helped us illustrate power-relational aspects of writing more visibly, we propose the same mentality can be adopted for other classes, communities, and educational contexts such as college composition courses, K-12 schools, and additional language writing classes. Those contexts of course might breed different textual events and include more hidden forms of power relations.

Conclusion

Our inquiry stance in this study was a necessary step in order to lead our writing project in a unique educational setting. As with all fruitful writing classes, the specificities of our writing community defied established pedagogical methods, and thus made us struggle to find ways to guide our activities towards meaningful outcomes. Accordingly, all through the workshop, we systematically researched ways to create a writing community, to establish connection between the writers and the Iranian rappers, to help the writers edit and publish the book, and finally to invite the hip hop artists to advertise the book, so that the project would create public conversations and generate change. In this article, we documented these steps, including reflections on the pitfalls and challenges, and the decisions made to overcome them in the process of this collaboration.

Acknowledgment:

We thank Professor Rob Simon for his inspirational Practitioner Inquiry course at University of Toronto and his valuable feedback on the research process.

References

Atkinson D. (2003). L2 writing in the post-process era: Introduction. *Journal of Second Language Writing, 12*(1), 3-15. DOI: doi.ogr/10.1016/S1060-3743(02)00123-6

Ballenger C. (2009). *Puzzling moments, teachable moments: Practicing teacher research in urban classrooms*. New York: Teachers College Press.

Cairney T., Ruge J., & Training E. (1998). *Community literacy practices and schooling: Towards effective support for students.* Canberra: Department of Employment, Education, Training and Youth Affairs.

Carr W., & Kemmis S. (2009). Educational action research: A critical approach. In Noffke S, & Somekh B, (Eds.), *The SAGE handbook of educational action research* (pp. 74-85). London: SAGE Publications.

Cella L., & Restaino J. (Eds.). (2012). *Unsustainable: Re-imagining community literacy, public writing, service-learning, and the university.* Lexington Books.

Clandinin D. J. (2006). *Handbook of narrative inquiry: Mapping a methodology*. Sage Publications.

Cochran-Smith M., & Lytle S. L. (2009). *Inquiry as stance: Practitioner research for the next generation*. London: Teachers College Press.

Cole A. L., & Knowles J. G. (1995). A life history approach to self-study: Methods and issues. In Russell T. & Korthagen F.A.J. (Eds.), *Teachers who teach teachers: Reflections on teacher education* (pp. 130-151). London: Falmer Press.

Coogan D. (2006). Community literacy as civic dialogue. *Community Literacy Journal, 1*(1), 95-108.

Couture B. (1999). Modeling and emulating: Rethinking agency in the writing process. In Kent T. (Ed.), *Post-process theory: Beyond the writing process paradigm* (pp. 30-48). Carbondale: Southern Illinois University Press.

Dobrin S. I., Rice J. A., & Vastola M. (2011). *Beyond postprocess*. Logan, Utah: Utah State University Press.

Ewald H. R. (1999). A tangled web of discourses: On post-process pedagogy and communicative interaction. In Kent T. (Ed.), *Post-process theory: Beyond the writing process paradigm* (pp. 116-131). Carbondale: Southern Illinois University Press.

Florio-Ruane S. (2001). *Teacher education and the cultural imagination: Autobiography, conversation, and narrative*. Mahwah: New Jersey: Erlbaum. DOI: doi.org/10.4324/9781410600356

Flower L. (2008). *Community literacy and the rhetoric of public engagement*. SIU Press.

Freire P., & Macedo D. P. (1987). *Literacy: Reading the word & the world.* South Hadley, Mass.: Bergin & Garvey Publishers.

Grabill J. T. (2001). *Community literacy programs and the politics of change*. Albany, NY: SUNY Press.

Hawk, B. (2004). Toward a post-technê-or, inventing pedagogies for professional writing. *Technical Communication Quarterly, 13*(4), 371-392.

Higgins L., Long E., & Flower L. (2006). Community literacy: A rhetorical model for personal and public inquiry. *Community Literacy Journal, 1*(1), 9.

Janks H. (2010). *Literacy and power*. London and New York: Routledge.

Janks H. (2013). Critical literacy in teaching and research. *Education Inquiry, 4*(2), 225-242. DOI: doi.org/10.3402/edui.v4i2.22071

Janks H. (2000). Domination, access, diversity and design: A synthesis for critical literacy education. *Educational Review, 52*(2), 175-186. DOI: doi.org/10.1080/713664035

Julier L. (2001). Community-service pedagogy. In G. Tate, A. Rupiper & K. Schick (Eds.), *A guide to composition pedagogies* (pp. 132-148). New York: Oxford University Press.

Kent T. (1999). *Post-process theory: Beyond the writing-process paradigm*. Carbondale: Southern Illinois University Press.

Kent T. (2011). Preface: Righting writing. In Dobrin S.I., Vastola M. & Rice J.A. (Eds.), *Beyond postprocess* (pp. xi-xxii). Logan, Utah: Utah State University Press.

Long E. (2008). *Community literacy and the rhetoric of local publics*. Parlor Press.

Lyons,N., & LaBoskey V. K. (2002). *Narrative inquiry in practice: Advancing the knowledge of teaching*. New York: Teachers College Press.

Lytle S. L. (2000). Teacher research in the contact zone. In Kamil M., Mosentha P.l, Pearson D. & Barr R. (Eds.), *Handbook of reading research* (pp. 691-719). Mahwah, NJ: Lawrence Erlbaum.

Lytle S. L., & Cochran-Smith M. (1992). Teacher research as a way of knowing. *Harvard Educational Review, 62*(4), 447-474.

Mathieu P., Parks S. J., & Rousculp T. (Eds.). (2011). *Circulating communities: The tactics and strategies of community publishing*. Lexington Books.

Morrell E. (2006). Critical participatory action research and the literacy achievement of ethnic minority youth. *55th Annual Yearbook of the National Reading Conference*.

Oslon, G. A. (1999). Toward a post-process composition: Abandoning the rhetoric of assertion. In Kent T. (Ed.), *Post-process theory: Beyond the writing process paradigm* (pp. 7-15). Carbondale: Southern Illinois University Press.

Parks S., & Goldblatt E. (2000). Writing beyond the curriculum: Fostering new collaborations in literacy. *College English, 62*(5), 584-606. DOI: doi.org/10.2307/378963

Peck W., Flower L., & Higgins L. (1995). Community Literacy. *College Composition and Communication, 46*(2), 199-222. DOI: doi.org/10.2307/358428

Petraglia J. (1999). Is there life after process? The role of social scienticism in a changing discipline. In Kent T. (Ed.), *Post-process theory: Beyond the writing process paradigm* (pp. 49-64). Carbondale: Southern Illinois University Press.

Pincus, M. (2001). The circle of inquiry. Retrieved from http://gallery.carnegiefoundation.org/collections/castl_k12/mpincus/c_of_i.htm

Simon R., Campano G., Broderick,D., & Pantoja A. (2012). Practitioner research and literacy studies: Toward more dialogic methodologies. *English Teaching, 11*(2), 5-24.

Simon R., & Kalan A. (2016). Adolescent literacy and collaborative inquiry. In Hinchman K.A., & Appleman D.A (Eds.), Adolescent literacy: *A handbook of practice-based research* (pp. 398-420). New York: Guilford Press.

About the Authors

Amir Kalan, PhD is the Academic Director for UDayton Global at University of Dayton. He also teaches TESOL methods at the University of Dayton. His research interests include critical writing studies, multilingual education, multiliteracies, practitioner inquiry, and visual ethnography.

Parisa Jafari is a Ph.D. candidate at the institute of Social and Cultural Anthropology at the Free University of Berlin. Her research interests lie in the area of transdisciplinary research particularly in participative methods, gender studies, culture and the construction of disaster, social exclusion and inequalities.

Mahdyar Aghajani is an Iranian music producer and film composer. His experiences include producing the well-known Iranian rapper Hichkas' debut album, which he created at the age of 16 in 2006. He has since been collaborating with numerous international artists and directors such as Bahman Ghobadi, Jon Stewart, Iara Lee, Birdy Nam Nam, Kool G Rap and more.

Authors' addresses

Amir Kalan
Rike Center: Center for International Programs
University of Dayton
300 College Park, Dayton, OH 45469
United States
E-mail: akalan1@udayton.edu

Parisa Jafari
Saargemünder Str 27b
Berlin, 14195
Germany
E-mail: parisa.jafari84@gmail.com

Mahdyar Aghajani
Kowloon Management
Penhurst House 352-356 Battersea Park Road
London SW11 3BY
England
E-email: mahdyar@mahdyar.com

Technology's roles in student-centred learning in higher education

Jose Eos Trinidad and Galvin Radley Ngo

Abstract
Given challenges of covering course content, ensuring skills acquisition, and assessing student's work, higher education faculty often experience difficulties in practicing student-centered learning. The education literature has shown that one way of addressing these concerns is through the use of educational technologies. In this action research, ten faculty members from a Philippine university participated in a coaching programme on using technology for student-centered learning. From interviews and classroom observations, the study finds that when introduced to appropriate tools, higher education faculty use technologies for interactive learning, timely feedback, and better engagement with students. The present research elaborates how faculty from different departments have used these technologies and how the students have responded to their use. The study contributes to the discussion of how technologies can enhance student learning and complement classroom instruction.

Keywords: student-centered learning; educational technology; student engagement; interactive learning; Philippine higher education

Los roles de la tecnología en el aprendizaje centrado en el estudiante de educación superior

Resumen
Dados los desafíos de cubrir el contenido del curso, garantizando la adquisición de habilidades y evaluando el trabajo de los estudiantes, los profesores de educación superior a menudo experimentan dificultades para practicar el aprendizaje centrado en el estudiante. La literatura educativa ha demostrado que una forma de abordar estas preocupaciones es a través del uso de tecnologías educativas. En esta investigación-acción, diez miembros del cuerpo docente de una universidad filipina participaron en un programa de capacitación sobre el uso de la tecnología para el aprendizaje centrado en el estudiante. A partir de entrevistas y observaciones en las clases, el estudio descubrió que cuando se introducen las herramientas apropiadas, los profesores de educación superior utilizan tecnologías para el aprendizaje interactivo, realizan devoluciones oportunas y tienen un mejor compromiso con los estudiantes. La presente investigación aborda cómo los docentes de diferentes departamentos han utilizado estas tecnologías y cómo los estudiantes han respondido a su uso. El estudio contribuye a la discusión de cómo las tecnologías pueden mejorar el aprendizaje de los estudiantes y complementar la instrucción en el aula.

Palabras clave: aprendizaje centrado en el estudiante; tecnología educacional; compromiso de los estudiantes; aprendizaje interactivo; educación superior filipina.

1. Introduction

Stemming from constructivist theories where knowledge is actively created by learners (Dewey 2011; Vygotsky 1978), student-centered learning (SCL) has gained credence as an effective educational approach. In this approach, students are actively engaged in their understanding of topics, and the teacher's role is about facilitating and scaffolding the learning process (Hoidn 2017). Although many teachers subscribe to SCL in principle, there are challenges in fully implementing this method, particularly in higher education. First, there are competing visions of what student-centered means and subscribing to this method can be a steep learning curve. Second, teachers need to cover the course content and SCL may take more time than the usual lecture format. Third, putting so much responsibility on students' motivation may lead to uneven acquisition of skills. Lastly, assessments are more difficult to prepare or correct, given the openness of questions and differences in answers (Hannafin & Land 2000).

Although the challenges are valid and understandable, there are ways that teachers have addressed these concerns. Teachers who actually started using SCL reported higher satisfaction and improved student academic outcomes (Dear 2017; Veldman, Admiraal, van Tartwijk, Mainhard, & Wubbels 2016). They also used creative ways like problem-based learning and small group discussions to cover more course content (Loyens, Rikers, & Schmidt 2006; Wijnia, Loyens, & Derous 2011). Another prominent way to address the challenges is to employ technology in practising SCL (Kang, Hahn, & Chung, 2015; Lowry & Flohr 2004). Thus, different technologies could be harnessed for classes and courses to be more focused on the learning of the students.

In this action research, we ask how university faculty understand student-centered learning and how they use educational technologies in instructing and teaching their classes. This present research shows that technology plays different roles for different teachers, particularly in relation to their disciplines and contexts. However, technology use can be categorized in terms of its different functions: increasing interactive learning, providing feedback on student learning, and fostering closer engagement with students. In this study of ten faculty members from a Philippine university, we highlight the current literature in student-centered learning, the process of training and coaching teachers in the use of technology, the results of the coaching, and the key insights from these results.

2. Student-centered learning and technologies

This literature review is divided in two parts. The first discusses the basics of SCL: its effects, assumptions, and challenges to implementation. It then shifts to how technology addresses these challenges and what framework is used for this present research.

Student-centered learning (SCL) is an educational approach where students direct their own learning, are supported in scaffolding their knowledge, and have a more active role in

the learning process (Brush & Saye 2000). In principle, the role of the teacher shifts from being "sage on the stage" to being "guide on the side," where teachers are no longer the sole knowledge source in the classroom and where students learn alongside the teacher (Weimer 2013). The shift is often seen *from* the lecture- or teacher-centered mode of learning *to* one where students engage and co-construct knowledge through experiential education, creative outputs, problem-based learning, and collaborative discussions (Abe 2011; Passehl-Stoddart & Monge 2014; Tom 2015). Although applicable to any grade level, SCL approaches are very appropriate in higher education because students already have advanced cognitive skills suitable for deeper learning, and social emotional skills for motivating and directing their education (Wright 2011).

Many studies have shown positive effects when using SCL, particularly with student motivation and achievement. Umbach and Wawrynzski (2005) use two United States datasets and find that students report higher levels of engagement when teachers use active and collaborative strategies. In addition to engagement, SCL contributes to better understanding and higher academic scores (Granger et al. 2012; Nurjannah, Husniyah, & Harjanto 2017; Wijnia et al. 2011). However, there have also been studies showing negative effects. This is particularly true in developing countries where SCL's efficacy is reduced because of implementation problems, lack of resources, and cultural differences (Abbasi & Hadadi 2014; Schweisfurth 2011).

It is possible that SCL works in some situations and not in others because of the strong assumptions that underlie this practice. For students, they are assumed to be motivated, self-managing, and collaborative (Brush & Saye 2000; Harju & Åkerblom 2017) while for teachers, they must prepare class activities in addition to lectures, offer assessments that test skills rather than memory, and create accountability measures so that all students are on task (de la Sablonnière, Taylor, & Sadykova 2009; Krahenbuhl 2016). Although helpful in principle, SCL does entail important shifts and significant challenges for instructors who use a more teacher-directed approach.

Challenges to the implementation of SCL are often the main concern of teachers who are resistant to this learning approach. First, teachers will have to shift teaching styles: from one where they direct the instruction to one where they facilitate discovery and knowledge construction with students (Kirschner, Sweller, & Clark 2006). This leads to a second concern in terms of time, where teachers may have less time to cover course materials and need more time to prepare student-centered activities (Cooper, MacGregor, Smith, & Robinson 2000; Patrick, Howell, & Wischusen 2016). A third concern from the students' perspective is their responsibility and motivation for learning. The strong assumption of self-directedness can prevent less motivated students from attaining the skills their more motivated peers are able to reach (Kozanitis & Desbiens 2016; Lee & Hannafin 2016). A fourth challenge is the difficulty in assessment, particularly for large classes since teachers will have to correct papers and clarify rubrics for more open-ended questions (Borda et al. 2017). It must be emphasised that not all lessons necessarily need to shift towards student-centred activities since there are still circumstances when teacher-directed instruction is necessary.

Although the challenges can dissuade teachers from incorporating strategies in this approach, educational technologies address some of the implementation challenges (Polly &

Hannafin 2010). Researchers have shown various ways for technology to improve, rather than substitute, teacher instruction (Dondlinger, McLeod, & Vasinda 2016; Kalathingal & Buchanan 2017). Technology can help in instruction, particularly when engaging students in active learning (Ralph & Ralph 2013), and contrary to the usual concern, there are opportunities for technology to help in terms of time because of activities outside the usual class meeting (Damewood 2016; Thoma, Hutchison, Johnson, Johnson, & Stromer 2017). It can also help in student motivation, and assist in providing timely assessments and feedback (Connor 2017; Nation-Grainger 2017).

Those critical of technology use in classrooms often have low expectations for technology to improve learning, and focus on technology fostering technical skills rather than realizing course content (Fu 2013; Lim 2007). In this evaluation, technology is seen as an add-on to the teaching process, and does not enhance student learning (Kay, Benzimra, & Li 2017; McCabe & Meuter 2011). Mindlessly using technology for its novelty has also led to negative effects with detrimental off-task activities, like using cellphones (Aagaard 2015; Kuznekoff, Munz, & Titsworth 2015). Thus, there is a caveat that technology should serve as means rather than as ends in the learning process.

Since technology should be used so that students learn better, this present research uses a framework that integrates technology knowledge with both content and pedagogical knowledge. Koehler and Mishra (2009) propose the TPACK (technological pedagogical content knowledge) framework. They argue that teachers have knowledge on three realms (technology, pedagogy and content), and that the three's interaction form the basis of effective teaching. Using this framework, teachers learn and integrate content knowledge (what to teach), pedagogical knowledge (how to teach), and technological knowledge (what technologies to use), all within the context of the learner (Archambault & Barnett 2010). In the realm of higher education where teachers have significant training in content knowledge, there are opportunities for teachers to clarify their pedagogy and see how technology could aid their instruction. Thus, this action research looks into technology's roles during the teaching of disciplinal content.

3. Context and methods

In 2017, Marian University, a pseudonym for a Catholic university in the Philippines, established its Institute of Education as a consortium of schools and departments that offer education programs and advance the school's education agenda. One of its main thrusts is research on student-centred learning in higher education, and the core team of the institute gave a workshop on SCL and technology's possible role in assisting and advancing learning. Ten university faculty from different departments and schools attended the workshop and tried to incorporate SCL and education technology to their classroom instruction and assessment.

3.1 Participants

At the end of the first semester of school year 2017-2018, the Education Institute opened registration in the *Learning with Technology* programme, and there were twelve college

faculty members who signed up, although only ten participated in the first workshop. Thus, this action research is limited to these ten members: five from the School of Humanities, two from Management, two from the School of Science and Engineering, and one from the Social Sciences.

The ten members were informed of the action research component of the study and have given their informed consent to participating. In the study, the only identifier used is the department they belong so that the use of technology is contextualised. The participants ranged from second-year instructors to associate professors who have been in the university for more than ten years.

3.2 Implementation of SCL action research

Action research is the strategy used to better understand SCL in higher education. Similar to the action research cycle (Coghlan & Brannick 2014; Kemmis, McTaggart, & Nixon 2014), the researchers *planned with* the teachers through workshops and coaching sessions, the teachers then *implemented* SCL with educational technologies, and the researchers were there to *observe* the execution and *reflect* with the teacher after the class or semester.

Before the start of the second semester, participants attended a whole-day workshop on SCL and education technology use. As the participants registered, they received informed consent forms that detail their voluntary participation in the program and research. After a round of introductions, the first session concentrated on teachers writing about their own teaching practices, learning objectives, student activities, and missed opportunities. The second session focused on technologies that can be integrated and used in the classroom. The last session applied insights from the first two sessions as the teachers individually designed a lesson or modified their course syllabus to have a more student-centered perspective.

During the first three weeks of the semester, the researchers worked individually with the teachers to plan their classes in terms of creating SCL environments and using appropriate technologies for instruction and assessment. The planning sessions are directed by the teachers and their lesson objectives, and the researchers provided ideas and technical support. The planning session often ended with a summary of the steps for a particular lesson and the researchers being invited to the implementation.

After this, the researchers observed the execution of some lessons, particularly noting how teachers apply SCL practices and use technology with these practices. After some time, the researchers asked the teachers about their experience: what transpired, what they learned, what they wanted to change, or what they wanted to improve. If needed, the teachers and researchers set another date to do planning and observation for another application of SCL in their classrooms.

3.3 Data collection

The *Learning with Technology* action research is interested to know how college faculty members understand student-centered learning and technology's roles in creating a SCL environment. Thus, data mainly derive from teachers, either through interviews during the planning and reflection phase, or through classroom observations.

In the planning phase, teachers are asked about their insights from the workshop, their ideas of student-centered instruction, the changes they have made in their classes, and how they plan to use technology in a lesson or their classes. In the reflection phase after the execution, the teachers talk about their classroom practice, their assessment of SCL practice and technology's role, their students' reactions to the changes, and the possible improvements arising from the reflection. These interviews were recorded with the participant's permission and transcribed afterwards.

3.4 Data analysis

After the interviews were recorded and transcribed and the observations were typed on Word documents, the researchers looked at the digital transcripts and notes, and analysed these for themes in terms of SCL, technology use, and the interaction between the two. The main means for analysing themes was abductive reasoning (Timmermans & Tavory 2012), where surprising findings interact with anticipated ones from prior SCL and technology research.

To identify the themes, both researchers read the transcripts independently and discussed the codes to be used and identified three general themes that relate with the present research. In order to show new findings that expand current literature, the researchers have been sensitive to themes that are unanticipated but common to at least two teachers. They have also taken note of themes that are common to previous literature on the use of technology for SCL. All interviews and observations were analysed, and particularly recurring words were highlighted.

For this research, we find three major categories for the teachers' answers on how they understand SCL and where they use technology: 'interactive instruction', 'feedback', and 'student engagement.' These themes come from both verbal answers during interviews and independent observations during in-class implementation. To protect the privacy of the respondents, they were given pseudonyms in this research and the identifiers are general but give some sense of the person's teaching background.

4. Student-centered learning and technology use

Since higher education faculty members teach diverse disciplines and are given a lot of instructional freedom, there are differences in how they understand SCL and how this is implemented with technologies. In this present research, we found teachers using technology to have more interactive work, more intentional feedback mechanisms, and more students engaged in course tasks. Although there were significant advances in the teachers' intentional use of technology, there were also some limitations and challenges that teachers encountered.

4.1 Technology for Interactive Learning

A number of teachers have used technology so that students can interact and collaborate with each other. There were instructors who used Kahoot and Plickers for group quizzes

where students had to deliberate their group's answer. Although both are online platforms where teachers can set-up quiz games, *Kahoot* needs both the teachers and the students to have access to internet-connected devices while *Plickers* only require wireless connection for the teacher who scans the students' printed plicker cards. The printed cards can be positioned to show a particular response (a, b, c or d), and the responses are captured through a mobile device's camera, tallied in real time and displayed on screen.

Anthony, a chemistry instructor, said that Kahoot "was a refreshing way to ask questions and get the class and workshop excited." For Plickers, he mentions that this technology is an effective way to track students' learning and a good avenue for students to work as groups. Karina, a physics professor, used Plickers and talked about how "it helped in making the otherwise boring question and answer activity more lively." Both of these science faculty members show how these applications help in creating interactive learning environments where students feel engaged and excited.

Other faculty members also highlight the use of this technology so that students can interact with each other. In his classes on theology, Howard uses Kahoot to test the students' understanding of the lesson and also incorporates *Padlet* in his interactive tool kit. This program allows a teacher to setup a virtual wall where students can post virtual sticky notes containing texts, links, images, and videos. After this, the teacher projects the image on the screen and discusses people's "sticky notes." He does these at the beginning of class to facilitate interaction among students and adds that it streamlined collection of discussion items and created a space for people to share ideas.

Providing space for interaction did not only affect the students' engagement with course materials, it also affected the teachers' understanding of their own pedagogies. Nina, a professor at the School of Management, said, "I realised that my classes have been lecture-intensive; I often see bored faces. By incorporating [interactions in class] they become more engaged, and they seem excited to participate in class." Thus, technology's use in fostering interactions not only affects students but also teachers. It is important to show that one of the ways technology can help in instruction is through the interaction it facilitates between students, and between teacher and students.

4.2 Technology for Feedback on Student Learning

A second theme on teachers' use of technology is them receiving feedback on students' learning. In this sense, technology is used so that teachers can gauge how deeply the contents are learned or how intently the skills are practiced. One of the tools used is *Today's Meet*, an online platform for teachers to setup a chat room where students can enter questions or insights being discussed in class. It allows teachers to respond directly to questions or clarifications, and it provides teachers quick feedback if there are students who are struggling with the course content.

In her many years of teaching, one of the difficulties experienced by Michelle, a finance professor, is that some students are not comfortable raising their hands and asking questions. Because of this, she tried using *Today's Meet* to create a chat room where students can post their questions anonymously, and she found out that people actually asked thought-provoking questions and she was able to respond to these before the end of class. Howard agrees and says, "The anonymity associated with these tools made students really

willing to participate and share their thoughts." Both teachers show the technology's potential in getting immediate feedback so that students can clarify their understanding.

Another way to get feedback from the students is by having online objective quizzes and short essay homework. A member of the philosophy department, Daniel gives online quizzes and short essay assignments to his students so that he can get immediate feedback and see gaps in students' understanding of ethics concepts. He also sees these activities as students' "preparation for class discussions." From this, teachers do not just get feedback on the students' performance; the students also try to be accountable for their own learning. Having quizzes helped Daniel see which philosophy topics to focus on because of the quick feedback on student's initial understanding.

In terms of time, online quizzes can also save teachers a lot of time because the checking happens automatically. This can free teachers up for more thoughtful evaluation of students' essays and creative work. As Sara, a faculty of the humanities, said prior to the coaching, "Assessments might be overly focused on comprehension and recall of other authors' critique [that there is] not enough opportunity for students' own critique." By having technology assist in feedback mechanisms, teachers can actually have more time for more thoughtful activities.

4.3 Technology for Teacher-Student Engagement

A third theme for how instructors use technology is the teacher's engagement and open communication with the students. Anna is a sociology professor who has been in the university for more than a decade, and she thinks of technology as "an addition: it's an enhancement, a magnifier of human intent," especially as she uses technology to be more connected with her students and to meet them "where they are." This is why she set up her own *Schoology* class where students can enrol in, get their resources, take online quizzes, and submit assignments. It also tracks students' attendance and provides the students' running grades at any point in the semester. For Anna, Schoology was a more convenient "space" for readings, announcements, and submissions.

Other teachers agree about their use of technology to facilitate teacher-student engagement outside the classroom. Seven out of the ten participants used a learning management system where the teachers setup online classes and students enrol in them; Schoology and Google Classroom are the two most common examples. Lance, a philosophy faculty member, uses Schoology for sharing reading materials and sending out grades. Anthony from the chemistry department uses Google Classroom for class assignments while Susan of the theology department uses Schoology for students to reach her and schedule consultations, aside from the functions already mentioned by the first two professors. From the examples, we see how college instructors use technology to reach out to their students and facilitate communication outside the classroom.

In class, there are examples of teachers using technology to engage students for their insights and stories. One philosophy instructor, Lance, shares how he is a "lecture-type of instructor—but of course, facilitative." Since he wants to get ideas and insights from his students, he tried using *Mentimeter*, an online platform that allows students to answer open-ended questions or vote on poll questions. Students submit, and answers are presented visually in real time. By using this, he privileges students' answers and finds that "most stu-

dents… felt involved without feeling coerced or put on the spot." Having these technologies helped teachers connect more to students and create learning opportunities inside and outside the classroom.

4.4 Limitations of Technology

Although there were important successes in the action research on technology's use in higher education classes, there were also some limitations to the implementation. For example, Nina from the management school was unable to incorporate technology in her classes although she has been very deliberate in providing a student-centered learning environment. She reflected about how the lecture format has been her comfort zone and how she now shifts to engaging students and giving them opportunities to report and do case studies. This shift to SCL, however, did not translate to technology's being employed because of factors such as her health condition and her perceived inadequacy in technologies.

Other limitations with the use of technology are online glitches that can happen when class activities require all students to have devices connected to the Internet or weird questions when students are anonymous in online polls. Additionally, two professors said that there were some activities that were still better on paper like quizzes and mindmaps. These limitations are important to consider, especially since teachers want to be intentional and strategic in their use of technologies.

It is also important to consider that teachers thought of technologies not as ends but as means to greater learning. A physics professor said that even if she already has an online learner management system, she still finds online participation and discussion lacking. Rather than think of this as a failure of technology, it can be considered a good sign that teachers want to maximize how technologies can enhance students' learning and engagement of the subject matter.

5. Discussion and Conclusions

Shifting to student-centered learning entails important shifts and specific challenges for instructors in higher education. There are difficulties with time limitations, unmotivated students, and quick assessments (Borda et al. 2017; Lee & Hannafin, 2016; Patrick et al. 2016). Because of these, the research asks how university faculty can use technology to address some of these concerns, and through this action research, we find that there are significant avenues where technology can actually help the instructor in the students' learning process.

The action research involved ten university faculty learning about SCL and the different technologies that can help in facilitating this type of environment. The framework used was the TPACK framework where teachers integrate technological knowledge with their pedagogical and content knowledge since this interaction forms the basis of effective instruction (Koehler & Mishra 2009). This action research's focus is on the use of technological knowledge to promote SCL practice, and there were four important insights that can contribute to the literature.

Firstly, similar to previous literature there are salient differences in instructor's understanding of student-centered practices. There are some teachers who privilege group activi-

ties and interactions between students while some teachers think of SCL as providing quality teacher-student feedback and engagement. Different teachers focused on different activities, and these activities did not always need technology use. These differences may also come from differences in disciplines and from the necessity to be flexible about content and pedagogical style (Mancuso 2001). This emphasizes that teachers can provide a wide variety of engaging activities and that the effort to put students at the center of the learning process can have significant positive effects (Umbach & Wawrzynski 2005). Teachers have mentioned that they found students to be more engaged when there were activities that involved the students in the learning of a concept. Our action research shows how this effort at more student-centered practices can help both teachers and students.

Secondly, when given a venue to learn about technological tools that can help with learning, higher education faculty are actually open to changing their strategies in teaching their students. By having a whole-day workshop and subsequent coaching sessions, the teachers learned more about student-centered learning and the possible technologies that can be integrated. Literature has shown that teachers can be resistant to using technology since this produces feelings of inadequacy and teachers perceive a lack of benefit from its use (Hicks 2011). However, a programme that assists teachers to learn more about technology's use in the classroom actually helped teachers try out different tools. Except for one teacher, all the programme participants were able to integrate technologies in the way they taught their students. For the one teacher who struggled, she nonetheless was able to use SCL principles, which she admits was already a huge shift. In this regard, teachers should know the appropriate uses and actual value added of using technology in the teaching process (Howard, 2013), and the action research suggests that this can be most effectively achieved when teachers are shown and coached with the possible tools.

Thirdly, university faculty members actually use technology for student-centered learning in at least three broad ways: to increase student-to-student interaction, for teachers to have quick feedback on students' learning, and for teachers to be able to communicate efficiently with their students. Teachers actually use technologies that promote collaborative and active learning; these can come in the form of group activities or games that try to engage the whole class in the lesson. More importantly, the teachers are able to use technologies in order for them to get quick feedback on the students' quality of learning or their remaining questions. Online assessments and query platforms help teachers get a sense of where the students are at and continually clarify lessons so that students can learn more. Another way technology is used in a student-centered classroom is as a means of communication and engagement from the teacher to the student. Learning management systems help teachers cascade information to their students, and these tools also help students know their current grades, access class materials, and identify forthcoming activities. These three "categories" of interaction, feedback and engagement form the base of what the researchers discovered of how technologies can function in SCL classrooms.

Lastly, the research finds that even if teachers are coached, there are still limitations in the use of these educational technologies, particularly as some teachers are not confident in using them or how glitches in the execution can discourage them. Future programs that promote the use of technologies in higher education must work around these constraints of motivating teachers to try them out and not be discouraged by the initial hiccups. Inasmuch

as some teachers experience limitations in the use of technologies, it must be noted that teachers still agree on the importance of using technology to reach out to students, to promote their learning, and to create a secure learning environment. Thus, this means that the limitations are not signs for abandoning the use of technology but are rather helpful cautions of the ways technology can be received and perceived.

In summary, the action research finds that although higher education faculty members have differences in their understanding and practice of SCL, the provision of a coaching program has been helpful in motivating teachers to use technology for better student interaction, faster feedback on student learning, and more engaged ways of communicating outside class time. The findings suggest that proper understanding of technology's roles in education and timely coaching help encourage teachers to try out different strategies that engage their students further. They also suggest that there are different strategies in promoting student's learning and growth, and that technologies can help enhance these strategies. Thus, technology is not an end where the teacher is forced to use technology, but a means for promoting collaboration, getting feedback, and engaging communication—all in an effort to put the students at the front and center of their learning.

References

Aagaard J. (2015). Drawn to distraction: A qualitative study of off-task use of educational technology. *Computers & Education*, *87*, 90-97. DOI:https://doi.org/10.1016/j.compedu.2015.03.010

Abbasi H., & Hadadi A. (2014). The Possible Negative Outcomes of Putting Learners in Spotlight. *Procedia – Social and Behavioral Sciences*, *98*, 3-8. DOI:https://doi.org/10.1016/j.sbspro.2014.03.381

Abe J. A. A. (2011). Positive emotions, emotional intelligence, and successful experiential learning. *Personality and Individual Differences*, *51*(7), 817-822. DOI:https://doi.org/10.1016/j.paid.2011.07.004

Archambault L. M., & Barnett J. H. (2010). Revisiting technological pedagogical content knowledge: Exploring the TPACK framework. *Computers & Education*, *55*(4), 1656-1662. DOI: https://doi.org/10.1016/j.compedu.2010.07.009

Borda E. J., Boudreaux,A., Fackler-Adams B., Frazey P., Julin S., Penningto, G., & Ogle J. (2017). Adapting a Student-Centered Chemistry Curriculum to a Large-Enrollment Context: Successes and Challenges. *Journal of College Science Teaching*, *46*(5), 8-13.

Brush T., & Saye J. (2000). Implementation and evaluation of a student-centered learning unit: A case study. *Educational Technology Research and Development*, *48*(3), 79-100. DOI: https://doi.org/10.1007/BF02319859

Coghlan D., & Brannick T. (2014). *Doing Action Research in Your Own Organization*. London: Sage.

Connor C. M. (2017). Using Technology and Assessment to Personalize Instruction: Preventing Reading Problems. *Prevention Science*, 1-11. DOI:https://doi.org/10.1007/s11121-017-0842-9

Cooper J. L., MacGregor J., Smith K. A., & Robinson P. (2000). Implementing Small-Group Instruction: Insights from Successful Practitioners. *New Directions for Teaching & Learning*, *2000*(81), 63. DOI: https://doi.org/10.1002/tl.8105

Damewood A. M. (2016). Current Trends in Higher Education Technology: Simulation. *TechTrends: For Leaders in Education & Training*, (3), 268. DOI:https://doi.org/10.1007/s11528-016-0048-1

De la Sablonnière R., Taylor D. M., & Sadykova N. (2009). Challenges of applying a student-centered approach to learning in the context of education in Kyrgyzstan. *International Journal of Educational Development*, *29*(6), 628-634. DOI:https://doi.org/10.1016/j.ijedudev.2009.01.001

Dear D. V. (2017). Do Student-Centered Learning Activities Improve Learning Outcomes on a BTEC Applied Science Course in FE? *Journal of Further and Higher Education*, *41*(5), 717-726.

Dewey J. (2011). *Democracy and Education*. New York: Simon and Schuster.

Dondlinger M. J., McLeod J., & Vasinda S. (2016). Essential Conditions for Technology-Supported, Student-Centered Learning: An Analysis of Student Experiences With Math Out Loud Using the ISTE Standards for Students. *Journal of Research on Technology in Education*, *48*(4), 258-273. https://doi.org/10.1080/15391523.2016.1212633

Fu J. S. (2013). ICT in Education: A Critical Literature Review and Its Implications. *International Journal of Education & Development Using Information & Communication Technology*, *9*(1), 112-125.

Granger E. M., Bevis T. H., Saka Y., Southerland S. A., Sampson V., & Tat, R. L. (2012). The Efficacy of Student-Centered Instruction in Supporting Science Learning. *Science*, *338*(6103), 105-108. DOI: doi.org/10.1126/science.1223709

Hannafin M. J., & Land S. M. (2000). Technology and student-centered learning in higher education: Issues and practices. *Journal of Computing in Higher Education*, *12*(1), 3-30. DOI: https://doi.org/10.1007/BF03032712

Harju A., & Åkerblom A. (2017). Colliding collaboration in student-centered learning in higher education. *Studies in Higher Education*, *42*(8), 1532-1544. DOI:https://doi.org/10.1080/03075079.2015.1113954

Hicks S. D. (2011). Technology in Today's Classroom: Are You a Tech-Savvy Teacher? *The Clearing House: A Journal of Educational Strategies, Issues and Ideas*, *84*(5), 188-191. DOI: https://doi.org/10.1080/00098655.2011.557406

Hoidn S. (2017). Introduction. In *Student-Centered Learning Environments in Higher Education Classrooms* (pp. 1-21). New York: Palgrave Macmillan. Retrieved from <https://link.springer.com/chapter/10.1057/978-1-349-94941-0_1>. DOI:doi.org/10.1057/978-1-349-94941-0

Howard S. K. (2013). Risk-aversion: understanding teachers' resistance to technology integration. *Technology, Pedagogy and Education*, *22*(3), 357-372. DOI:https://doi.org/10.1080/1475939X.2013.802995

Kalathingal S. M., & Buchanan A. (2017). Tools and Technology to Promote Student-Centered Learning and Assessment. *Oral Surgery, Oral Medicine, Oral Pathology and Oral Radiology*, *124*(1), e31-e32. DOI:https://doi.org/10.1016/j.oooo.2017.03.037

Kang M., Hahn J., & Chung W. (2015). Validating a technology enhanced student-centered learning model. *Journal of Interactive Learning Research*, *26*(3), 253-269.

Kay R., Benzimra D., & Li,J. (2017). Exploring Factors That Influence Technology-Based Distractions in Bring Your Own Device Classrooms. *Journal of Educational Computing Research*, *55*(7), 974-995. DOI:https://doi.org/10.1177/0735633117690004

Kemmis S., McTaggart R., & Nixon R. (2014). *The Action Research Planner: Doing Critical Participatory Action Research*. Singapore: Springer.

Kirschner P. A., Sweller J., & Clark R. E. (2006). Why Minimal Guidance During Instruction Does Not Work: An Analysis of the Failure of Constructivist, Discovery, Problem-Based, Experiential, and Inquiry-Based Teaching. *Educational Psychologist*, *41*(2), 75-86. DOI:https://doi.org/10.1207/s15326985ep4102_1

Koehler M., & Mishra P. (2009). What is Technological Pedagogical Content Knowledge (TPACK)? *Contemporary Issues in Technology and Teacher Education*, *9*(1), 60-70.

Kozanitis A., & Desbiens J.-F. (2016). Canadian Engineering Students' Motivation in the Context of a Shift Toward Student-Centered Teaching Methods in an Outcome-Based Education. *International Journal of Engineering Education*, *32*(5A), 1847.

Krahenbuhl K. S. (2016). Student-centered Education and Constructivism: Challenges, Concerns, and Clarity for Teachers. *Clearing House*, *89*(3), 97-105. DOI:https://doi.org/10.1080/00098655.2016.1191311

Kuznekoff J. H., Munz S., & Titsworth S. (2015). Mobile Phones in the Classroom: Examining the Effects of Texting, Twitter, and Message Content on Student Learning. *Communication Education*, *64*(3), 344-365. DOI:https://doi.org/10.1080/03634523.2015.1038727

Lee E., & Hannafin M. J. (2016). A design framework for enhancing engagement in student-centered learning: own it, learn it, and share it. *Educational Technology Research and Development*, *64*(4), 707-734. DOI:https://doi.org/10.1007/s11423-015-9422-5

Lim C. P. (2007). Effective integration of ICT in Singapore schools: pedagogical and policy implications. *Educational Technology Research and Development*, *55*(1), 83-116. DOI: https://doi.org/10.1007/s11423-006-9025-2

Lowry L. L., & Flohr J. K. (2004). Technology and Change: A longitudinal case study of students' perceptions of and receptiveness to technology enhanced teaching and learning. *Journal of Teaching in Travel & Tourism*, *4*(1), 15-39. DOI:https://doi.org/10.1300/J172v04n01_02

Loyens S. M. M., Rikers R. M. J. P., & Schmidt H. G. (2006). Students' Conceptions of Constructivist Learning: A Comparison between a Traditional and a Problem-based Learning Curriculum. *Advances in Health Sciences Education*, *11*(4), 365-379. DOI: https://doi.org/10.1007/s10459-006-9015-5

Mancuso S. (2001). Adult-Centered Practices: Benchmarking Study in Higher Education. *Innovative Higher Education*, *25*(3), 165-181.

McCabe D. B., & Meuter M. L. (2011). A Student View of Technology in the Classroom: Does It Enhance the Seven Principles of Good Practice in Undergraduate Education? *Journal of Marketing Education*, *33*(2), 149-159. DOI: doi.org/10.1177/0273475311410847

Nation-Grainger S. (2017). 'It's just PE' till 'It felt like a computer game': using technology to improve motivation in physical education. *Research Papers in Education*, *32*(4), 463-480. DOI:https://doi.org/10.1080/02671522.2017.1319590

Nurjannah I., Husniyah F., & Harjanto T. (2017). Teacher-Centered Learning and Student-Centered Learning Approaches in Nursing School: Which One Is Better? *Belitung Nursing Journal*, *3*(2), 65-72.

Passehl-Stoddart E., & Monge R. (2014). From Freshman to Graduate: Making the Case for Student-Centric Institutional Repositories. *Journal of Librarianship & Scholarly Communication*, *2*(3), 1-11. DOI: https://doi.org/10.7710/2162-3309.1130

Patrick L. E., Howell L. A., & Wischusen W. (2016). Perceptions of Active Learning between Faculty and Undergraduates: Differing Views among Departments. *Journal of STEM Education: Innovations and Research*, *17*(3), 55-63.

Polly D., & Hannafin M. J. (2010). Reexamining technology's role in learner-centered professional development. *Educational Technology Research and Development*, *58*(5), 557-571. DOI: doi.org/10.1007/s11423-009-9146-5

Ralph M., & Ralph,L. (2013). Weapons of Mass Instruction: The Creative use of Social Media in Improving Pedagogy. *Issues in Informing Science & Information Technology*, *10*, 449-460. DOI: https://doi.org/10.28945/1821

Schweisfurth M. (2011). Learner-centered education in developing country contexts: From solution to problem? *International Journal of Educational Development*, *31*(5), 425-432. DOI: doi.org/10.1016/j.ijedudev.2011.03.005

Thoma J., Hutchison A., Johnson D., Johnson K., & Stromer E. (2017). Planning for Technology Integration in a Professional Learning Community. *The Reading Teacher*, *71*(2), 167-175. https://doi.org/10.1002/trtr.1604

Timmermans S., & Tavory,I. (2012). Theory Construction in Qualitative Research: From Grounded Theory to Abductive Analysis. *Sociological Theory*, *30*(3), 167-186. DOI: https://doi.org/10.1177/0735275112457914

Tom M. (2015). Five C Framework: A Student-Centered Approach for Teaching Programming Courses to Students with Diverse Disciplinary Background. *Journal of Learning Design*, *8*(1), 21-27. DOI:http://dx.doi.org/10.5204/jld.v8i1.193

Umbach P. D., & Wawrzynski M. R. (2005). Faculty do Matter: The Role of College Faculty in Student Learning and Engagement. *Research in Higher Education*, *46*(2), 153-184. DOI: https://doi.org/10.1007/s11162-004-1598-1

Veldman I., Admiraal W., van Tartwijk J., Mainhard T., & Wubbels T. (2016). Veteran teachers' job satisfaction as a function of personal demands and resources in the relationships with their students. *Teachers & Teaching*, *22*(8), 913.

Vygotsky L. S. (1978). *Mind in Society: Development of Higher Psychological Processes*. Cambridge, MA: Harvard University Press.

Weimer M. (2013). *Learner-Centered Teaching: Five Key Changes to Practice*. San Francisco: Jossey-Bass.

Wijnia L., Loyens S. M. M., & Derous E. (2011). Investigating effects of problem-based versus lecture-based learning environments on student motivation. *Contemporary Educational Psychology*, *36*(2), 101-113. DOI:https://doi.org/10.1016/j.cedpsych.2010.11.003

Wright G. B. (2011). Student-Centered Learning in Higher Education. *International Journal of Teaching and Learning in Higher Education*, *23*(1), 92-97.

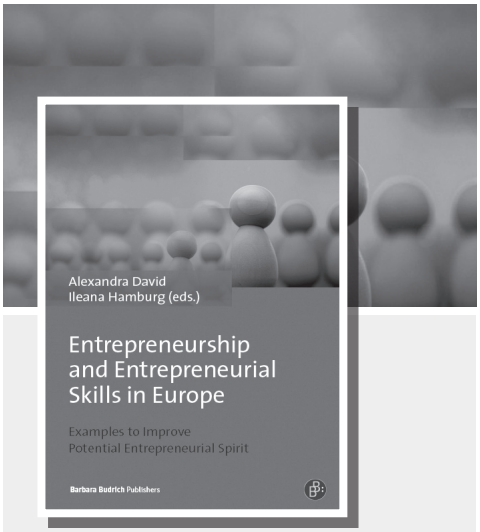
About the Authors

Jose Eos Trinidad is instructor at the Department of Interdisciplinary Studies and coordinator for research of the Ateneo SALT Institute. After graduating from the University of Chicago, he has focused his research on sociology of education, interdisciplinary studies, and non-cognitive factors affecting student outcomes.

Galvin Radley Ngo is the coordinator for education technology of the Ateneo SALT Institute. He is concurrently CEO of the Woohoo Learning Lab and was formerly the education technology director of Xavier School.

Authors' address:

Jose Eos Trinidad and Galvin Radley Ngo
Ateneo SALT Institute, 4th floor, Learning Innovation Wing, Areté,
Ateneo de Manila University, Loyola Heights, Quezon City, Philippines
jtrinidad@ateneo.edu, gngo@ateneo.edu



Alexandra David
Ileana Hamburg (eds.)

Entrepreneurship and Entrepreneur Skills in Europe

Examples to Improve Potential Entrepreneur Spirit

European labour markets and societies are subject to constant change. One way to face these challenges is the application of "entrepreneurial skills". The authors give examples of entrepreneurship in the fields of digitalization, social innovation, and eco-innovation and present special groups of entrepreneurs and their entrepreneurial spirit.

2017 • 116 pp. • Pb. • 16,90 € (D) • 17,40 € (A)
ISBN 978-3-8474-0568-9 • eISBN 978-3-8474-0960-1

Anna Guhlich

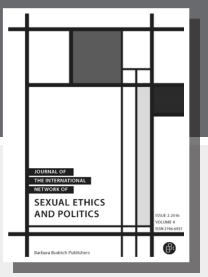
Migration and Social Pathways

Biographies of Highly Educated People Moving East-West-East in Europe

The author researches the phenomenon of highly qualified migration using the example of migration between the Czech Republic and Germany. The book reveals diverse strategies migrants use to respond to the possible de-valuation of their qualification, e.g. by making use of their language skills, starting new studies or using transnational knowledge.

Qualitative Fall- und Prozessanalysen. Biographie – Interaktion – soziale Welten
2017 • 363 pp. • Pb. • 46,00 € (D) • 47,30 € (A)
ISBN 978-3-8474-2118-4 • eISBN 978-3-8474-1106-2

Budrich Journals



European Review of International Studies

ISSN: 2196-6923
eISSN: 2196-7415
volume 5, 2018
3 x per annum
approx. 150 pp./issue
Language: English

International Journal for Research on Extended Education

ISSN: 2196-3673
eISSN: 2196-7423
volume 6, 2018
2 x per annum
approx. 120 pp./issue
Language: English

Journal of the International Network for Sexual Ethics & Politics

ISSN: 2196-6931
eISSN: 2196-694X
volume 6, 2018
2 x per annum
approx. 120 pp./issue
Language: English

Politics, Culture and Socialization

ISSN: 1866-3427
eISSN: 2196-1417
volume 9, 2018
2 x per annum
approx. 200 pp./issue
Language: English

• Available Print + Online •
• Single Article Downloads •
• Various Subscription Types for Individuals and Institutions •
• Free Contents (ToCs, Editorials, Book Reviews, Open Access Contents) •
• Online Access by Campus Licence via IP for Institutions •
• Archival Rights for Institutions •
• Permission for Interlibrary Loan •
• VPN access permitted •
• No Limitations on Number of Users at Budrich Journals •

www.budrich-journals.com