Workshops as a Research Methodology

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Abstract: This paper contributes to knowledge on workshops as a research methodology, and specifically on how such workshops pertain to e-learning. A literature review illustrated that workshops are discussed according to three different perspectives: workshops as a means, workshops as practice, and workshops as a research methodology. Focusing primarily on the latter, this paper presents five studies on upper secondary and higher education teachers' professional development and on teaching and learning through video conferencing. Through analysis and discussion of these studies' findings, we argue that workshops provide a platform that can aid researchers in identifying and exploring relevant factors in a given domain by providing means for understanding complex work and knowledge processes that are supported by technology (for example, e-learning). The approach supports identifying factors that are not obvious to either the participants or the researchers prior to commencing the workshop process. This paper also discusses the facilitator's different clinical and ethnographic roles and highlights the risks and ethical issues involved during both the workshop process and the workshop data analysis. As such, these collaborative and immersive aspects frame workshops as a research approach that has the potential to advance meaning negotiation between researchers and participants.

1. Introduction to scope and research methodology

This paper explores what can be learned from using workshops as a research approach in various organisational contexts, namely, how this approach can inform the research domain, learning design, and organisational practices.

The domain in question is video conferencing (VC) and how it relates to teaching and learning practices, as well as to participants' experience of a shared *place*, as opposed to the experience of *space* separated into physical locations, online data transport, and objects, such as monitors and loudspeakers. The experience of place (Dourish, 2001; Hedestig and Kaptelinin, 2005) allows participants to experience a community of practice (Wenger, McDermott, and Snyder, 2001) distributed across distance.

In the VC teaching setting, we defined the third room as the 'a mutually shared feeling of closeness – that is, of being and doing something together in an individually and mentally constructed merging of near and remote locations through VC mediation' (Levinsen, Ørngreen, and Buhl 2013, p.252). This understanding allows us to bypass the individual perspective limitations referred to as telepresence (Draper, 1998), thus expanding the perspective to encompass the participants' mutual experience. We find this to be valid in VC settings and third room experiences in general, not only with regard to teaching situations. The workshops have a dual purpose. The first is for the teachers to develop their practice and become capable of managing the third room in their everyday practice – in other words, teacher professional development (TPD). The second is to use the workshops as a research method that enables us to investigate the phenomena supporting a third room experience's construction or deconstruction; this topic is the focus of this paper.

This dual purpose is similar to the iterative process of design-based research (Cobb, et al., 2003; Magnussen and Sørensen, 2011) and action research (Argyris and Schön, 1996; Reason and Bradbury, 2007; Nielsen and Nielsen, 2010). The workshop as a research approach is an explicit method choice that allows us to iterate, and thus refine and moderate, our research design over time and in different contexts.

This paper relies on five studies examining upper secondary and higher education teachers' professional development, specifically in the following settings: an adult learning centre (VUC), a biomedical laboratory analysis (BioLA) bachelor programme, the Royal Danish Academy for Music (RDAM), a university learning lab and in-service training facility (LL), and, a European Conference on eLearning (ECEL) workshop.

The research design and analysis are rooted in an understanding of learning as situational and contextual, with priority being given to participants' ability to act (agency). Consequently, in our data interpretation, it was vital

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to investigate emergent and dynamic practices and trajectories (Orlikowsky 2000), as well as to rely on the participants' conveyed experience-based knowledge (Flyvbjerg 1998). Thus, workshop effectiveness was assigned value based on reported changes, how well the workshop theme was anchored to the organisation, and the entire experience as continually interpreted by the researchers.

We present the five cases' empirical findings and analyse the research design in accordance with the basic methodological questions raised in the call-for-papers invitation for this special issue:

- How to choose a particular methodological approach, and what are specific arguments that are important to consider with when choosing the research design in e-Learning contexts?
- How do we identify and qualify criteria for the construction of research designs according to current themes in e-Learning?
- How do we achieve reliability and validity in e-Learning research - and how do we manage blind spots and links between research objectives and relevant findings?
- What are the options for the generalisation of findings and are there special concerns in e-Learning research?
- How are the criteria for research design and research findings negotiated in the various research communities (paradigms) and our field of e-Learning?
- Are there new instances and new uses of e-Learning that lead to a need for new research designs and new research methods, tools and techniques?

The objective here is to identify the properties, criteria, and practices constituting this workshop-based research form. The aim is not to discuss or present the data analysis of each of the five cases; however, in order to ensure the transparency of the empirical material, upon which the findings rest, we have inserted references to further readings on the cases. As such, this paper presents the type of questions and knowledge that this kind of research study can procure and discusses the method's limitations.

2. Workshop as a methodological frame

Originally, *workshop* ment 'a place where things are made or repaired' (Merriam-Webster, 2016). Today, *workshop* means an arrangement whereby a group of people learn, acquire new knowledge, perform creative problem-solving, or innovate in relation to a domain-specific issue.

How 'workshop' came to label these arrangements appears untraceable, but according to Isaksen, Dorval, and Treffinger (1994), the format goes back to Osborn, who in 1948 first described methods for creative group problem-solving. Creative problem-solving (CPS) became commonly known as 'brainstorming' in the wake of Osborn's book, *Applied Imagination* (1953). According to the Danish Dictionary (2016), the use of the term 'workshop' exploded in the early 1960s, as Osborn's and related social (constructivist) ideas spread to a wide range of domains at various complexity levels – for example, policy-making, societal challenges, technology, organisational change, innovation, and design. While Osborn's CPS approach is still in development (Isaksen, Dorval, and Treffinger, 1994; Vehar, Firestien, and Miller, 1999; Puccio, Murdock, and Mance, 2007), a wide range of workshop formats has emerged. Some examples include domain-specific workshops like TPACK (Misha and Koehler, 2006) and the Community Building workshops (Peck, 1990); integrated methodological system elements, like the future workshop (Müllert and Jungk, 1987); SWOT analyses (Jackson, Joshi, and Erhardt, 2003); soft systems methodologies (Checkland, 1981; 1998), particularly the rich picture method (Avison, Golder & Shah (1992); participatory design (Ehn and Kyng, 1987; Beyer and Holtzblatt, 1998); and participatory rural appraisal (PRA) (Chambers, 1983; 2002). Since the 1990s, the term 'workshop' has often been seen in conjunction with the term 'participation' (Cornwall and Jewkes, 1995; Kensing and Blomberg, 1998). Today, 'workshop' has become a part of our everyday language and requires no further explanation, though the workshop as a concept is weakly defined from an academic perspective, since its formats and uses developed within authentic contexts (workplaces, arts, politics).

Our research applies the more explicit (not everyday) use of the term 'workshop'. The literature search's point of departure was its objective to reveal which factors and elements are at play in how the term 'workshop' is used today, as well as which nuances exist in applying workshops as an explicit chosen phenomena. The circular search strategies applied traced interesting phenomena as they emerged in our readings, for example, tracing the participatory workshop method's origin and current use. Therefore, the objective has not been to

uncover and analyse the full body of workshop literature, but rather to identify and work with the different approaches at play, and through this, to illuminate their differences and similarities with respect to goals, outcomes, phases, roles, and organisation.

2.1 Perspectives on workshops

The literature analysis led to the identification of three distinct perspectives representing three levels of workshop knowledge, which will be elaborated on in the following section. These are: workshops as a means, workshops as practice, and workshops as a research methodology.

Workshops as a means are authentic workshops aimed at domain-specific issues and represent a large body of literature in which the workshop is seen as a means to achieve a goal. This literature is typically divided into two types. One type, like cookbooks, focuses on the heuristics, frameworks, guidelines, and instructions for how to design, orchestrate, conduct, and facilitate workshops (Müllert and Jungk 1987; Bobo, Jackie, and Steve, 2001; Chambers, 2002; Misha and Koehler, 2006; Soneryd and Amelung, 2016). The other type reports outcomes regarding participants' new competencies, practices, knowledge, or ideas as a result of participating in authentic workshops (e.g. in service training, design processes, workplace development, or societal development) (Street, 1997; Durance and Godet, 2010; Axmacher, 2013).

Workshops as practice focus on investigating the relationships between the workshop and its form and outcomes. The literature represents an extensive body of authentic workshop case studies, in which we found two major perspectives: one investigates the workshop as a format (e.g. Cornwall and Jewkes, 1995; Phaal, Farrukh, and Probert, 2007; Mor, Warburton, and Winters, 2012; Wiek, et al., 2014), while the other investigates participants' domain-specific outcomes (e.g. Putnam and Borko, 2000; Koehler, Mishra, and Yahya, 2007; Jaipal and Figg, 2010). Workshops as practice have a development dimension, as the participants create something (often immaterial, such as a design or work process). Findings from these studies indicate that workshops as a means are an authentic practice within the domain in question and generate guidelines on how to innovate and incorporate workshop frameworks into future situations.

Workshops as research methodology focus on the study of domain-related cases using the workshop format as a research methodology. In these studies, the workshop is, on one hand, authentic, as it aims to fulfil participants' expectations to achieve something related to their own interests. On the other hand, the workshop is specifically designed to fulfil a research purpose: to produce reliable and valid data about the domain in question (Darsø, 2001; Wakkary, 2007; Rossi and Sein, 2003; Jaipal and Figg, 2010; Yurdakul, et al., 2012; Baran, et al., 2014).

Shared features across workshops

Based on the literature review, we found a variety of basic shared features. For example, workshops are arranged events of a limited duration targeted to participants who either share a common domain, e.g. work in the organisational change domain (Darsø, 2001; Jackson, Joshi, and Erhardt, 2003); work in the same field, e.g. education (Putnam and Borko, 2000; Koehler, Mishra, and Yahya, 2007; Jaipal and Figg, 2010); or share agendas, such as rural development (Chambers, 1983), soft system methodologies (Checkland, 1981; 1988), or participatory design (Ehn and Kyng, 1987; Beyer and Holtzblatt, 1998). Workshops are conducted by people with experience within the domain, and they promote genuine participation. The participant group is kept small to allow everyone personal attention and the chance to be heard. The participants are expected to actively participate and influence the workshop's direction, as well to as practice the relevant techniques, skills, situations, and so forth. Additionally, workshop participants and organisers expect an outcome (e.g. the generation of new insights, suggestions, or (re)designs of a product, process, or innovation).

Workshops are specifically designed to fulfil a pre-defined, though not predictable, purpose. We have identified three approaches to designing workshops. The first is the use of cookbooks and guidelines for various workshop formats derived within specific domains. In this approach, choices are legion and formats can be adapted or mixed (e.g. Bobo, Jackie, and Steve, 2001; Chambers, 2002). The second is the use of conceptual formats, which prescribes phases, pre-designed activities, roles, and progression. This category includes, for example, the future workshop, which involves preparation, critique, phantasy, and implementation phases (Müllert and Jungk 1987), and the scenario workshop, which is a further development of the future workshop in which the critique phase is based on pre-designed scenarios (Street, 1997; Soneryd and Amelung, 2016). Additionally, larger frameworks like the soft systems methodology, which focuses on ill-

defined problem situations within social activity systems (Checkland, 1999); the MUST-framework; and methods for organisational context design within the participatory design tradition (Kensing, Simonsen, and Bødker, 1996) incorporate workshops as part of the practice toolbox. The third is the use of open formats, which allows participants and facilitator(s) to negotiate and influence the format during the workshop. This form enables the facilitator to intervene on-the-fly as the workshop develops and unforeseen phenomena emerge by introducing challenging participant activities from a conceptual format repertoire (e.g. roleplays, artefacts, scenarios, and obstructions). To this category belongs Darsø's Edge of Chaos (2001); the collaboratorium in participatory design (Buur and Bødker, 2000); participatory pattern workshops (Mor, Warburton, and Winters, 2012); the Collaborative E-learning Design (CoED) method (Ryberg, et al., 2015); and the World Cafe method (Brown, 2002).

Workshops often evolve around exemplary activities staged as roleplays or scenarios. While scenario workshops take their outset in realistic and recognisable scenarios (Soneryd and Amelung, 2016), the PRA uses exemplary roleplays to facilitate participants' acquisition of the participatory behaviours necessary for introducing and spreading participatory practices in rural areas (Kumar, 1996). Similarly, TPACK workshops use the TPACK method to disseminate TPACK practices (Baran et al., 2014; Yurdakul et al., 2012; Jaipal and Figg, 2010). The workshop can be self-contained in that participants do not have to study before or after the workshop to acquire the outcome (e.g. Chambers, 2002). Others plan with a workshop format that aims to generate progression over time through a series of workshops (Öberg and Hernwal, 2016).

Workshop design often employs various forms of obstructions that disturb and challenge the participants' domain preconceptions in order to provoke reflection and new recognition. As a specially designed event, the workshop is already an obstruction that removes participants from their everyday context. Participants' habitual practices can be obstructed and innovation can be provoked through the use of unfamiliar practices – for example, having illiterate Indian farmers draw maps (Cornwall and Jewkes, 1995), requiring participants to act in theatre or produce visual art (Darsø, 2011; Tanggard and Stadil, 2014), or hosting workshops in unfamiliar places, such as the collaboratorium in participatory design (Buur and Bødker, 2000).

Workshops as research methodology

As the paper focuses on the workshops-as-research-methodology perspective, we will take a deeper look at the literature addressing this dimension. However, we found this perspective to be far less extensively represented than the other workshop perspectives.

Workshops as a research methodology aim to produce reliable and valid data about the domain in question regarding forward-oriented processes, such as organisational change and design. The findings feed back into the domain theory, the methodology, and/or the practices regarding future agency. E-learning conducted in the third room over VC constitutes both a phenomenon and practice of organisational change (implementation and use) and relates to e-learning design. That is, using workshops as research methodology is an especially useful approach in studies that are emerging and unpredictable, or that are, as Darsø elaborates, characterised by 'real-timeness', 'thrownness', interaction, and prospects (Darsø, 2001, p.203).

As a research design, the workshop is designed to amplify certain elements while reducing others. From the perspective of authentic workshops, the researcher acts as the facilitator who prioritises participant needs. From the research perspective, the participants, along with their expected and performed agency, become part of the research design and the data-producing apparatus. The researcher focuses on the research quality, while the participants become objectified. Accordingly, workshops as research practice, with its dual purpose, contain inherent contradictions with regard to roles, expectations, and interests, which can emerge unexpectedly in real-time as researchers and participants are 'thrown' into mutual interactions. With respect to participation, we follow Biggs, Cornwall, and Jewkes (1995), who distinguish four participation modes: contractual, whereby people are contracted by the researchers to participate in inquiries and experiments; consultative, whereby people are consulted regarding their opinions before interventions are made; collaborative, whereby researchers and participants work together, but with the researchers in control; and collegiate, whereby researchers and participants contribute in a mutual process controlled by the participants. In workshops used as research methodology, only the collaborative and collegiate participation modes are optional. With respect to the researcher's role, we follow Darsø (2001, p.216), who (with reference to Edgar Schein) distinguished between the 'clinician', who focuses on participant needs, and the 'ethnographer', who focuses on the research. Cornwall and Jewkes 1995), together with Chambers (2002), pointed out that

researchers tend to forget the clinician role and instead treat participants as contractual or consultative research objects, leaving them without influence. Durance and Godet (2010) argue that this can lead to conflicts of interest and raise ethical challenges. Accordingly, researchers have to carefully balance acting as clinicians and ethnographers during workshops in order to avoid conflicts of interests or downright participant abuse. However, the balance can also impact the research data's quality, as the clinician is often invited 'backstage', while the ethnographer 'is only allowed to see the front stage' (Darsø, 2001, p. 218, with reference to Edgar Schein). Accordingly, the roles' complementarity poses a methodological strength, as well as a challenge. Therefore, Darsø stresses the importance of the researcher being accountable for and constantly aware of the roles and their different scopes and influences during research practice.

While the literature is informative regarding various workshop setups that facilitate participants' openness and creativity, it is equally non-informative regarding methodological issues, such as how to produce and document data or how to argue the data's reliability and validity in relation to analysis. With reference to John Heron, Darsø (2001, p.220) distinguishes between primary and secondary data. Primary data are produced or emerge in real-time, while secondary data are retrospective representations and accounts of 'what happened'. With respect to secondary data, Darsø follows the general methodological claims for qualitative research (Creswell, 2009; Newby, 2010), arguing that primary data and cannot be kept and that the immediate quality depends on the person who experiences something. This provides a challenge for workshops as research methodology. Darsø suggests documenting primary data in terms of personal Personal thick notes (with focus on bifurcation points and the reasoning behind choices/deselections), symbols and mind maps; inter-subjective interaction video-recordings; and collections of artefacts and representations produced during the workshop. In the analysis, it makes a difference whether or not the analysts were originally present. Kumar, Yammiyavar, and Nielsen (2007) suggest a method called 'MindTape' using 'stimulated retrospective verbalisation, which involves the use of a stimulus'. The stimulus could be any documentation of primary data exposed to inter-subjective analysis. In our experience, the use of MindTape in plenary workshops allows for methodological transparency that can support primary data quality and analysis prediction power.

3. Five studies that applied workshops

As mentioned in the introduction, our research relies on five studies examining TPD at the upper secondary to university level. In the following sections, we will briefly introduce each study, describing each project's context, objective, method, and exemplary findings. As VC teaching and learning researchers, we have acquired workshop experience through many projects and teaching situations. However, we will discuss five specific studies that illustrate how research knowledge emerges and is prioritised and valued, both within a project and across projects. This will provide a backdrop for discussing how our workshop approach is conducted in a TPD setting within the VC realm and the third room, as well as how it relates to the literature review and design research. This section's objective is to show where our workshops are similar to the approaches that we have identified from the literature, where they differ, and where we see potentials and barriers when viewing a workshop as a research-based design approach within technology-enhanced learning in general.

VUC

In 2011, the adult learning centre VUC Storstrøm launched an HF programme – a higher preparatory examination course or upper secondary general education programme lasting two full-time years – that uses a hybrid VC model. In this model, the teachers and some of the students were present on campus in the classroom, while other students simultaneously participated from their homes using laptops. The students themselves chose when to physically attend class and when to dial in from home. For more details about the specific setup, which the VUC named 'the global classroom model', see Weitze and Ørngreen (2014). As researchers, we have collaborated with the VUC since the 2012 fall semester, where workshops have been part of a larger empirical mixed-method approach (Creswell, 2009; Newby, 2010; Johnson and Onwuegbuzie, 2014) together with interviews and observations, as well as a co-funded PhD project using a design-based research approach. In this paper, we report on the workshops taking place from autumn 2012 to spring 2014. Two issues arose that had not been discussed earlier in the project, and that did not arise in the VC teaching and learning literature.

Over the course of 1.5 years, various workshop formats were applied, including the initial workshops, which were inspired by the personal approach, SWOT (Strengths, Weaknesses, Opportunities and Threats)

workshops, workshops with the middle and top management, and more hands-on VC workshops that allowed teachers to experiment with different approaches towards activating their students. The latter format, among others, provided the insight that many VC teachers have never 'put themselves in the shoes of their students' by logging onto the platform and experiencing learning from a distance. The teachers placed in this situation were clearly surprised about how quickly they fell into a passive learner mode, essentially 'watching TV', a position requiring great effort to overcome. The 'watching TV'-finding has been confirmed by many of our other empirical data, as well as in many projects, but it was the workshop approach that highlighted the teachers' lack of experience as a VC student and its consequence for their ability to create the third room, namely, the mutually shared feeling of closeness.

Similar findings, though with different consequences, came from our final project workshops. Here, the participants acted as supervisors helping new students choose which educational programmes to follow. Not only did these supervisors often have little or no experience with their own company's global classroom model, but they often also had very little or no experience with VC in general, making guidance difficult. Some advisors typically recommended that those who find it difficult to be with others choose the global classroom hybrid model. However, teachers experienced with the model found that such students often found it difficult to follow the programme, as the model reinforced their passive behaviour.

BioLA

Similarly to the VUC case, the BioLA bachelor's programme at VIA's healthcare university college in Aarhus established a hybrid VC model for one of their classes (i.e. at the time of the project, two BioLA classes were offered each year: one hybrid and one traditional class). In the hybrid model, students were offered a minimum of one online day at home per week, often in combination with a second day for project or homework, allowing students to stay home typically two days per week. As researchers, we facilitated two workshop types in 2012–2013, aiming to investigate and convey robust educational designs and pedagogical methods. As in the VUC case, workshops were a part of the process, which also included viewing recorded teaching, and in collaboration with the BioLA team, we interviewed teachers and conducted a question-of-the-day process with the students via mail, inspired by the mobile probes method. The hybrid programme had been running for one year when we became involved as researchers, though other technological setups had been used prior as well. For more details about the specific setup and its history, see Ørngreen et al. (2015).

The first workshop was held with the project team that facilitated BioLA's VC implementation process and included active teachers in the programme. With this team, we facilitated discussions on the opportunities and barriers that the project team and the teachers experienced to understand what could be learned and done. We repeated this three times. The process of conducting small-scale workshops served as a mutual learning platform, informing us about the context and aiding us in possible interpretations. At the same time, it gave the BioLA project team insights that they could not have otherwise reached. Together, we found viable ways forward. For example, it became clear that very little was known about what students were doing when they participated from home. We suggested that the students be asked about what they were doing as they were being taught. It is clear in both the VC literature and in our projects that engaging with and activating students are key focus points. However, we found that some BioLA students remained at home because a child was ill, or because they expected to be able to fold laundry while 'listening' to the teaching. In our follow-up workshop, we found that VC requires explicit negotiation of 'how we do VC-teaching', and that in each module, the teacher must communicate with the class about active participation expectations. This knowledge was useful for the project and for the VC domain in general.

We held the second workshop with all of BioLA's teachers as part of the yearly Pedagogical Day. This meant that all teachers were present, including those who had already taught in this hybrid environment and those who were about to. On Pedagogical Day, we had, together with the project team, gathered from the aforementioned empirical material examples that were used to facilitate group discussions. Because everyone from BioLA was present, and because some were not motivated to begin VC-teaching, the workshop became a very sensitive albeit constructive environment for discussing all of the fears and not-yet-explicated thoughts that teachers who were about to or who had recently entered a VC arena may have.

RDAM

Since 2009, the Royal Danish Academy for Music has, with help from technical experts, experimented with VC-teaching using advanced technological equipment. The setup involved campus-to-campus VC, primarily for

one-on-one teaching sessions, though sometimes also for master classes. The academy engaged us as educational researchers first in a 2011 pilot and then again in 2012–2013 for a project called, 'Telepresence as Educational Practice'. This project aimed to produce knowledge about VC implementations' educational implications, and the research focused on the telepresence concept with the goal of identifying elements that would serve as a basis for changing educational practices. The project's formulation was inspired by action research, and it involved, among others, a couple of workshops with RDAM's VC teachers. For more details about the specific instruments involved and the project phases, as well as the telepresence findings, see Levinsen, Ørngreen, and Buhl (2014).

The workshop invited all teachers who had taught via VC to participate in a discussion facilitated by us as researchers. In the first workshops, we shared our plans for investigating the phenomena in question and presented some of our pilot findings in an open manner. In the later workshops, we had more concrete examples of what the data and our analysis demonstrated, with explicit room for the participating teachers to contribute their interpretations and experience. We learned that these discussions were indeed rare, as this kind of knowledge-sharing very seldom happens across instruments. In fact, several teachers stated that this was the first time that they had discussed teaching practices with people outside of their own group. From the general VC perspective, it was discovered that even in this very audio-sensible music teaching environment where teachers often claimed that audio is all that matters, it turns out that in educational processes, the visual plays a significant role for establishing the third room.

LL

In spring 2014, we conducted a voluntary five-hour TPD workshop for the Aalborg University in-service training centre called 'Learning Lab'. This workshop was targeted to teachers from all faculties who wanted to explore and improve their performance in the video-mediated third room. The workshop introduced participants to research-based knowledge about third room teaching, as well as provided hands-on practice exercises and teaching scenario roleplays. Throughout the university as a distributed organisation depending on VC-based teaching, the number of participants was low, and we even had to cancel a workshop in 2016. In the workshop, we found factors confirming our other workshops' findings, such as that the teachers had not logged from the remote student's perspective, and that they also had challenges when it came to involving students in various ways. Regarding new aspects, the workshop brought forward some of the organisational issues pertaining to TPD in general, namely, how to organise and motivate senior university teachers to engage in formal professional development activities.

ECEL

In order to follow up on all of our findings, in autumn 2014, we invited participants from the Copenhagen ECEL to participate in a three-hour workshop aiming at exploring and sharing experiences of the possibilities and challenges with creating and maintaining the individual telepresence experience in distributed or remote locations, which is necessary for constituting the third room. In this workshop, we used the LL-workshop format, using roleplay and hands-on exercises to explore how to act and perform in a video-mediated, synchronous teaching and learning context, discussing ways to activate students in the third room and allowing participants to experience what it is like to be 'on the other side', in the learner's position. Most of the 20 participants were experienced VC practitioners with a variety of cultural and practical educational experiences. They came from nine countries, with broad representation from Europe, Africa, and the Middle East, as well as South and North America. Consequently, the dialogue brought forward cultural similarities and differences, for example, how to interpret interaction signs.

4. Analysis and discussion

In relation to the workshop-as-research-methodology perspective, the five studies' various workshops brought different knowledge and factor types into play, including some in areas that we could not have predicted beforehand.

As the literature review shows, the existing research dominantly focuses on how to conduct workshops and present findings. Meanwhile, articulation of how to produce and analyse data is practically absent. For example, Darsø (2001) provided details on roles and formats, reflecting upon their meaning when workshops are applied to creative processes. Similarly, Öberg and Hernwall (2016) stated that they analysed the four workshops that they presented, but they did not show how this analysis was conducted. In our approach, the

workshops' frame and intentions were produced through collaboration and written down. Though we adopted a semi-anthropological approach that relied on event recall, we also used recordings and note-taking to support our retrospective inferences. When possible, the note-taking and video-recordings were produced by a researcher or assistant. As part of the research design, we applied small, in-the-background discussions while participants were busy preparing, for example, a roleplay. These small discussions provided an overview and helped us stay proactive during the workshop and continuously interpret the factors at play.

In our analysis, we contemplated our formal reflections on the five studies, both individually and together. When evaluating workshops as a research approach, we also placed value on our own immediate experiences, as noted in our discussions following each workshop. It is clear from this analysis that one of the research-method benefits is that the workshop form helps uncover participants' unrecognised or unacknowledged blind spots. We also have a clear sense that the same findings would not have emerged in other research designs. For example, in the RDAM case and with regard to the issue of lacking both formal and informal knowledge-sharing spaces, it was not only the researchers who saw and understood the problem; it became an openly debated issue among the teachers as well. This debate moved the RDAM organisation and participants towards a mutual recognition and equipped them to act on this issue in the future. The debate also provided us as researchers with greater insight into the problem definition and the involved factors.

We found, in accordance with, for example, Darsø (2001), Phaal, Farrukh, and Probert (2007), that workshops play a specific role in identifying, articulating, and exploring ill-defined or fuzzy challenges in research areas involving technology, such as in the e-learning and video-conferencing research field. Many local workshop participants (with participants from the same organisation) have difficulty talking about technology. This is due to the lack of a common language, the immaterial nature of some e-learning technologies, and their human-computer interfaces. A workshop with hands-on activities in a safe environment can help bring technology into play. As all participants are 'doing' the same thing, and as both the participants and the facilitator can pause the activity, the workshop form enables the building of a common language, making the technology and the factors involved more 'visible' and easier to verbally address. From a workshop-as-a-research=methodology perspective, we gained new knowledge regarding how to enhance teachers' technology acquisition in their teaching practice. From a workshop-as-a-means perspective, the participants often acquired a more confident and experimental attitude towards the technology involved, and we therefore argue that the workshop form can raise participants' technological understanding.

Our literature review identified the collaborative and collegiate roles in workshops as a research methodology (derived from Biggs in Cornwall and Jewkes, 1995), as well as revealed the pitfall whereby some researchers forget the clinical role and treat participants contractually or consultatively, leaving participants without real influence (Chambers, 2002; Cornwall and Jewkes, 1995). This can affect both research quality and participant outcomes. In our studies, we found examples of participants, as well as participating organisations' management, pushing the research project towards a more contractual or consultative project than was originally intended. For example, in the VUC project, it became obvious that a layer of management and pedagogical consultants had defined the project's activities with the researchers. The participating teachers had not been 'sworn-in' to the activities to the same degree. The teachers were not reluctant, per se, and some were very engaged, but they did not feel the same level of ownership, and some felt none at all. Consequentially, they implicitly re-negotiated the project into a contractual role by asking the management and the researchers about how many hours they would receive from participating in the workshops. In the RDAM project, we found that the vast majority of participating teachers did feel a great deal of ownership and engagement in the activities, including the workshops. These roles could be defined as collegial, as we as facilitators/researchers were experts in e-learning and video-conferencing, and they were experts in conservatory-level music. However, during the process, it also became clear that the management often framed all activities in the project using linguistic marks, negotiation and role positioning (i.e. including – and sometimes in particular – the workshops) as more of a consulting activity, where researcher involvement was linked to a form of 'seal of approval' on their video conference setup. In both projects, VUC and RDAM, it took some effort to push these boundaries 'back to the intended' collaborative and collegial setups. We thus argue that, in workshops, the definition of the roles, setting, and form is done by many parties, not just the researchers, particularly with longitudinal projects. This means that, as researchers using the workshop as research methodology, one must be aware of these factors and (as pointed out previously in the literature review) of the conflicts of interest as a source of ethical challenges (Durance and Godet, 2010), as well as be

accountable for and constantly aware of the roles and their different scope and influence during practice (Darsø, 2001).

In workshops where participants came from the same organisation (particularly with the VUC, BioLA, and RDAM studies), we found a basis for understanding the contextual factors that would influence video-conference learning and teaching through both micro, inside-the-situation management and macro management of the situation in the organisation. Had we not used these in the international ECEL workshop, we could have found it more difficult to involve participants who did not know each other in the discussion at such a detailed level as we managed. We did this by using experiences from various organisations (VUC, BioLA, RDAM, and LL) together with the roleplay situation as motivators. Thus, we used the workshops to identify, clarify, confirm, and even dismiss research findings across studies.

We argue that the presented workshop information, activities, and roleplays sparked two different kinds of debriefing discussions, depending on the setting and the participant types. With the VUC and LL teachers who participated in workshops as co-workers in a TPD setting, the discussions became inwardly focused, asking 'how does or could this apply in my teaching/organisation'. In the ECEL workshop with researchers and learning experts as participants in a knowledge-sharing setting, more general discussions on 'what does this mean' occurred. This indicates that explicit workshop participant choices are necessary when deciding the research design. For example, in an area where some research knowledge already exists, it may be advantageous to begin with local workshops involving co-workers as participants. Repeating these workshops in different local contexts brings forward new aspects and nuances to the existing knowledge, as well as allows for identifying the research findings' blind spots. As this knowledge matures and continuously emerges, workshops with researchers and learning experts (who are not co-workers but who share a common agenda) support a process of validating and making research findings reliable through participatory meaning negotiation. In these expert/researcher workshops, detailed information from the previous local workshops is presented and close-to-real roleplaying is applied. On the one hand, here, the debriefing discussion becomes more evaluative in nature. On the other hand, in areas where little or no research knowledge exists prior to the workshop's commencement, the reverse research design could be applied. In these more immature research areas, initiating a workshop with researchers and learning experts could aid in exploring the domain in question, enabling facilitating researchers to identify areas of interest to be used afterwards in local workshops. In any case, a workshop's investigated phenomenon will change over time from broad, open questions of which factors are at play in certain situations to specific questions, like: What triggers this specific factor, and into what directions? Can we see this specific factor playing the same role in other contexts? Which nuances of this phenomenon or factor exist?

Because of the context and workshop-design variations, we not only know more now about the third room domain and practice, but we also know more about how TPD workshops regarding video conferences can be designed and conducted, as well as where the pitfalls and opportunities are. Therefore, even though we have identified the workshop as research methodology as our investigative purpose, it is noteworthy that as the workshops matured and the knowledge we precipitated stood out, we learned more about the guidelines' effectiveness (workshops as practice) and are in a better position to carry out workshops as a means activities within the video conference domain with the objective of supporting others conducting video conference sessions for third room learning.

The kind of knowledge and empirical data that workshop-based research brings forward is profoundly different from that of both interviews and observation. As such, the workshop as a research methodology can be a constructively provocative and liberating activity where knowledge is explicated (as in Öberg and Hernwall, 2016, where action research and participatory-oriented workshop approaches are used). While observations provide first-hand evidence of what people do and interviews offer access to inner thoughts and the reasons for actions, workshops combine a little of both without being either. By describing scenarios and/or acting them out in a simulated and facilitated environment, and by having facilitated discussions, the group dynamics can work productively to open up the issues (though this can also, in some situations or for some people, be counterproductive). The workshop co-constructs a place for collaborative negotiation of meaning – not only between participants, but also between facilitators (the researchers) and participants, who both during and after the workshop adopt and adapt to what is being discussed, performed, and learned. Through this, workshops bring us close to practice without being in practice. In our experience, we find that, in larger

research projects, workshops work well in combination with other methods in a mixed method approach (Creswell, 2009; Newby, 2010; Johnson and Onwuegbuzie, 2014).

In the previous paragraphs, we hinted at the research method's limitations, which are often related to the quite immersive and collaborative environment that both the facilitators and the participants are 'thrown' into. For some people, such an environment places them in a more passive, lurking position. When this happens in a workshop discussion activity, there are ways for the facilitator to try and activate the participant or to work around it in order to obtain the person's opinions and experiences, similar to what is seen in focus groups (Halkier, 2002). However, in the technological, hands-on activities, activating people who are reluctant to participate can be both a difficult quest and a risky endeavour. The workshop results rely on the researcher's 'clinical' performance to create a good atmosphere, facilitate the sense of giving each other space, and be sensitive to verbal and nonverbal communication. A gentle push to try something out has proven successful in many of our workshops. However, there is a fine line between researchers' 'clinical' and 'ethnographic' performance, which corresponds with participants feeling that they are being gently pushed as opposed to feeling forced against their will. Another factor that can influence the balance is the participant composition from the organisation. We have experience with both workshops where participants were co-workers on the same team and from different teams, and where participants consisted of both teachers and their managers. However, we have not found that a hierarchical relation (employer-employee) always entails tension with 'what can be said and done'. This depends more on the type of organisation, and in our relatively flat power-structure in a Nordic-European context, a more constructive debate was often seen when both parties were present.

5. Conclusion: Lessons learned about workshops as a research methodology

In this paper, we identified from the literature three workshop perspectives: workshops as a means, workshops as practice, and workshops as a research methodology. Focusing primarily on commonalities of the three, as well as on aspects of the latter, we argued, among other things, that workshops work well in domains characterised by being ill-defined and prospective. The awareness and accountability of the researchers' roles as 'clinicians' and 'ethnographers' is pivotal. In addition, the researcher's role intertwines with the participants' participation modes, whether collaborative or collegiate. We presented five studies that constitute individual research projects or research-based activities, but which together constitute a continuously emerging and evolving research agenda into video-conferencing for learning and knowledge-sharing. In the literature, we found that workshops can be both singular and succeeding event(s) used in a singular case (in an organisational setting or across organisations). However, we did not find much data on the workshop-as-a-research-methodology perspective, and no study explicitly discussed how workshops can be used across research projects and activities as a method for enlightening a domain over longer periods of time. We argue that workshops, both in a single research project and across projects in a longitudinal perspective, inspire new insight into the research domain in question, and that they do so in ways that other research methods cannot. However, we see the approach as particularly resourceful when used in combination with other empirical approaches (mixed methods).

The type of data generated in a workshop is quite different from data produced by observations and interviews, or by interventions into the participants' actual everyday praxis. It is not as easy to document a workshop process from beginning to end, though one researcher can take on a stronger note-taking role or otherwise record the session with a hand-held device. In a workshop, issues can be presented, experimented with, played out, and discussed. Thus, when workshops are applied as part of a research design, the researcher opts for an immersive and collaborative environment where meaning is negotiated. This can be an opportunity to identify new factors at play and the relationships between them, which neither the participants nor the researchers may not have been aware of prior to the workshop. The researcher needs to be sensitive towards the different ways that people react to the immersive and collaborative nature, as well as strive to stay proactive about his/her facilitation of the process. In the discussion, we presented various strategies for planning with the 'right match of participants', and we identified that being aware of and even explicit about the clinical and ethnographic roles is vital for creating a positive collaborative environment.

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