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THINKING IN TERMS OF MOVEMENT
The Arts-Based Research Perspective of Teachers Professional Practice

S.S.D. (Disciplinary Sector) M-PSI/06 – Work and Organizational Psychology

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«Con lieve cuore, con lievi mani,
la vita prendere la vita lasciare»
Hugo von Hofmannsthal

*A chi mi ha donato il proprio tempo
lasciandomi libera e non debitrice.*

Abstract

Educational research, in recent years, in focusing its attention on the different ways of acquiring and transmitting knowledge within educational contexts, has focused special attention on practical-operative experience of teachers.

But, what does it means to focus on practical experience of work?

The perspective of sociomaterialism has been provided an arena in which we can reflect on the nature and on the role of materiality and its relationship with social phenomenon.

In short, what we can learn from the perspective of these theories is the crucial role of the focus on activities and practices in the determination of professional work and learning. The questions now become: what are the elements that constitute professional practice? How we can study and explore these elements?

Based on this corpus of literature there are four essential dimensions that an analysis on professional practice must consider: times; spaces; bodies; things (Schatzki, 2001).

This paper takes start from this assumption considering (specifically) the body as the metronome and the wheel on the teachers' professional practice. The study of body and its relationships in the workplace becomes a turning point in the educational research (but not only). What it could mean to *be*, to *practice*, and to *learn* as a professional become significant questions for researchers.

Body has often avoided in educational research reducing the term choreography just as metaphor of practice and/or logical connection among steps and things. This is a crucial aspect in these studies if we think about the sociomaterialism perspective of practice and the Schatzian identification of the

body as one of the four essential key elements for the study of professional practice.

In this study, dance and choreography (Foster, 2011) have been used as concepts to interpret teachers' work. The aims here are to see what kind of information we can gather using this perspective and to explore a new ways to investigate teachers' practice.

For the first step of a wider project we observed four Vocational Education and Training (VET) teachers during their daily work. The second part of the project includes 25 secondary school teachers. Later, we extended the protocol to a wider sample of secondary teachers in order to identify common teachers profiles.

Results synthesize different "choreographic styles" that represent teachers of different disciplines: math; science; lab.; second language; literature; philosophy; art; physical education. Contrarily, with what we expected to observe disciplines do not necessarily entail different movement qualities (such as the use of space). However, different didactic actively are characterised by some specific qualities of movement.

The importance of a study on body and its role in a working practice becomes relevant if we consider the meanings that the body might convey in today's society.

The focus on the body awareness could have important implication for the teacher education paths. This kind of studies could change the way in which teacher education is thought and practiced. Theories of movement and analyses of body could open up new understandings of work and practice as they can reveal intimate and unconscious aspect of human thoughts, beliefs, and ways of being.

Contents

1. Setting the scene: literature reviews and theoretical framework assembly

1. Introduction

This research work takes place in the wider field of Education. Specifically, the focus is on methodological aspects of educational research processes aimed to the study of teacher's practice.

In past decades, the practical-operative experience of teachers has been considered a special focus for educational research. Although the concept of practice captured the attention of researchers, educational research has widely ignored concepts of materiality and bodily knowledge (Sørensen, 2007, 2009). There was (and still is) a tendency in investigating material aspects as immaterial things (Fenwick, 2012). Practical knowledge is embodied and embedded; it is a sensitive and tacit knowledge, produced and mediated by the body (Landri, 2012). Similar considerations have marked a real turn in the studies of society, knowledge, and meaning, and have profoundly modified analytical-interpretative categories. M. Sheets-Johnstone (1999) argues that movement experience is a source of knowledge. Exploring teachers way of knowing as practical and embodied activity implicates to know and investigate what it means "embodied way of knowing". Embodiment experience is different from "body experience" (which is typically based on a Cartesian dualistic understanding) and «encompasses an individual person's biological (somatic), intellectual, emotional, social, gendered, artistic and spiritual experience, within their cultural, historical and geographical location» (Barbour, 2011, p. 88).

What really counts is not the experience in acting as a list of credits, but the actor's ability to learn from experiences and create meanings from those experiences in order to improve her/his expertise.

Recently, artists and artistic practice have contributed not only to the investigations of new research methodologies and forms of research findings representations, but also to the «institutional acceptance of performance practices and processes as arenas in which knowledge might be opened» (Piccini, 2004, p. 6).

This study takes place in the Teacher Education field and it is aimed to study teaching practice as choreography, as an artistic practice performed by teachers in the classroom. There were identified three main research questions that guided the whole project.

- Is it possible to identify a choreographic style in teachers' activities?
- Can Art help understanding bodily practices and attitudes in teachers' work?
- Can we link the "bodily literacy" of teachers with their pedagogical competencies in order to perform the analysis of teaching choreographic style? How can it be possible?

This contribution starts from the personal training experience of the candidate; as further and deeper explored in the next sections, the dual identity of researcher/dancer helps to investigate and think about educational issues from a different point of view. This first part of the present Doctoral thesis explores three main themes that where analysed in order to create a coherent background for the research project. As a try to create a new perspective for the study of teaching and teachers' practice, the literature review needed to pick up from different fields, which provided important elements for this purposes. As result, the "mashup" realised provides the background for the study of body in teaching and teachers' practice.

The four main field of investigation are as follow (Fig. 1):

- studies on teaching styles and teachers' practice in education;

- organisational studies and the concepts of practice and performance;
- the role of metaphors in language;
- artists'/researchers' contributions on the role of body in the research processes and embodied ways of knowing.

Fig. 1 – Framework sources
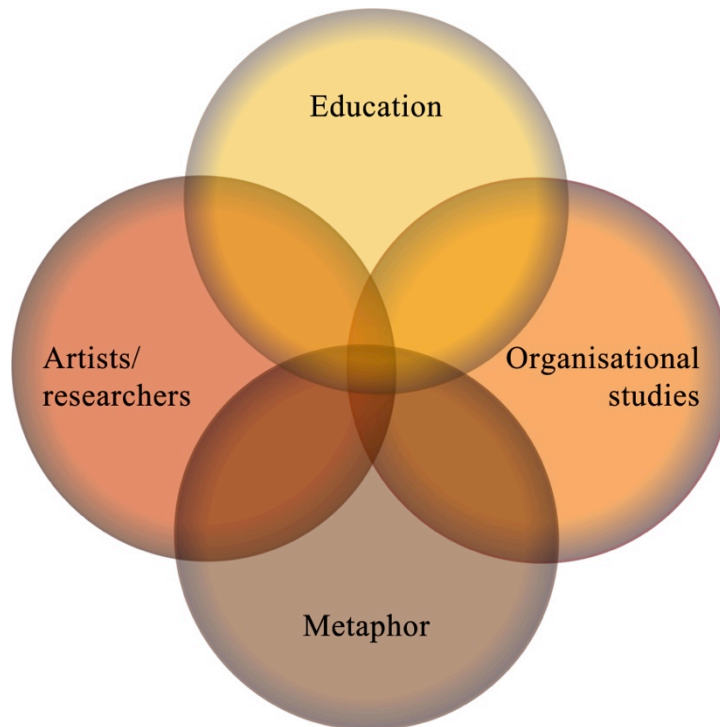
The following paragraphs will explore these four fields. Specifically, attention will be paid on the literature investigated and linked issues used to improve and support the whole framework.

1.1 Studies on teaching styles and teachers' practice in Education

French tradition about educational practices identifies variables that pick out teaching efficacy such as the importance of cognitive and motivational stimuli, the efforts to the task, and the interaction between teacher and student where the student is an active participant in the teaching/learning process (Altet, 2004; Bottani, Poggi, & Mandrile, 2010; Samurçay & Pastré, 2004).

In the whole educational context "style", intended as «a pervasive quality in the behaviour of an individual, a quality that persists thought the content may change» (Fischer & Fischer, 1979, p. 245) becomes an umbrella concept for the studies on teaching/learning processes (Frunză, 2014; Grasha, 1994, 1996; Peacock, 2001; Pratt, 2002). «In every field of endeavour, people can be identified with distinctive qualities of behaviour that are consistent through time and carry over from situation to situation. So it is in education, both in teaching and in learning» (Fischer & Fischer, 1979, p. 245). In this perspective, during the last decades, attention has paid on the way through which teachers manage their didactic activities. As explored by E. Buccoliero and M. Maggi (2009), Weber distinguishes eight approaches that characterise teacher's identity in the classroom.

1. AUTHORITARIAN – when the teacher has the central role in the classroom.
2. INTIMIDATING – when the teacher maintains the level of discipline through strategies such as ridicule, sarcasm or intimidation.
3. TOLERANT – in which, starting from the assumption that the student has the ability to self-regulate, students have freedom and autonomy in the classroom.
4. "RECIPE BOOK" – where the teacher takes a combination of superstitions literally as she/he considers them effective to deal with any difficulty during the lesson.
5. ISTRUCTIONIST – where the teacher has to motivate and guide students during the program in order to avoid any form of rebellion.
6. BEHAVIOUR MODIFICATION – where the teacher, based on theories of reinforcement, strengthen desirable student behaviours and delete the unwanted one.
7. POSITIVE CLIMATE IN THE CLASSROOM – here the teacher tries to create a positive socio-emotional communication as it is considered effective for learning outcomes.
8. GROUP PROCESSES – a good and collaborative class group is considered the basis for an effective cognitive development.

Obviously, these are not mutual exclusive categories. Each teacher could use different approaches at the same time. As result her/his "teaching style" is a combination them.

P. Meazzini (2000) identified three levels of pedagogical skills. In the first level there are teacher's psychological characteristics such as problem solving, decision making, communicative skills, and abilities about self-control. The second level includes skills such as the ability to create an effective planning of didactic activities. Then, these are skills not immediately connected to the teacher-student relation. The last level is made up by skills that are applied during the direct relation with students. These are the management ability of both class group and single student (Buccoliero & Maggi, 2009). These three levels include teacher skills that are connected each other in a systemic perspective.

B.B Fischer and L. Fischer (1979) provided a clear definition of style: «a classroom mode, a pervasive way of approaching the learners that might be consistent with several methods of teaching» (p. 251). Specifically, they described six teaching styles:

1. THE TASK-ORIENTED – teachers call for tasks and ask students specific performances;
2. THE COOPERATIVE PLANNER – teachers plan didactic activities with students and guide their learning;
3. THE CHILD CENTERED – teachers plan learning activities following students desires in order to let them pursue their aims;
4. THE SUBJECT CENTERED – teachers focus on their teaching. Dealing with all topics planned is a more important priority then students' learning;
5. THE LEARNING CENTERED – whatever are their ability/disability, teachers help students to achieve aims predetermined and autonomy in learning;
6. THE EMOTIONALLY EXCITING – teachers are directly engaged in their work participating actively in the teaching/learning processes and creating a collaborative climate in the classroom.

J.S. Bruner (1977) discriminates teaching styles on the basis of professional knowledge that they transmit. He, then, distinguishes *informal knowledge* (intended as the interpreted knowledge) from *formal knowledge* (the basics that the teacher provides during lessons). R. Semeraro (1999) argues that the "didactic methodology" teachers use during the lessons affects their teaching style influencing their choices on the curriculum and their conceptions on subject of reference, students' learning processes, practical-operational knowledge on didactic instruments and technologies, and on assessment processes.

M.C. Opdenakker and J. Van Damme (Opdenakker & Van Damme, 2006) investigated educational practices of 132 math secondary school teachers in Flanders, Belgium. The aim of the study was to explore the relation between that practices, teachers' characteristics, and their teaching style. Through a questionnaire administration, the researchers identify three components that in their opinion characterise teaching style:

1. LEARNER-CENTERED TEACHING STYLE – the teacher shows an innovative teaching that is also *student-centered*.
2. CONTENT-CENTERED TEACHING STYLE – when the teacher shows a traditional teaching style focused on the acquisition of subject related knowledge.
3. TEACHERS' CLASSROOM MANAGEMENT SKILLS – this component refers to teacher's ability to create a collaborative and serene classroom climate in order to maintain the class control of the class without any difficulties.

Differently from styles and approaches highlighted before, these three components are orthogonal in nature as there are not significant relations among them.

More recently, R. Nadarajan *et al.* (2015) defined teaching style as the «styles implemented by teachers to deliver knowledge effectively. […] Hence, teacher needs to know which method needs to be used on the particular situation and for particular learners» (Nadarajan, Naimie, Abuzaid, Thing, & Elhadad, 2015, p. 624).

What emerged from this review is the role of practice in the study of teaching as well as the management of didactic activities. As stated by Carr «education and teaching are, to be sure, matters of practice more than theory» (1992, p. 242). Although the candidate does not completely agree with Carr on the importance of practice over theory[1], his contribution clearly highlights how teaching cannot be understood without a deep investigation of practices. This issue had the result to further explore the concept of practice and the ways through which it can be possible to investigate it. How it can be defined the concept of practice? Which are the elements that it must be taken into account to obtain a deep understanding of professional practice?

Educational research investigated the concept of practice for teachers' daily work mainly focusing on the relation between knowledge and practice. Starting with the work of D. Schön (1983, 1987a, 1987b) about the crucial role of reflection *in*, *through* and *on* practice, researchers have began to pay attention on practical processes of teaching for teachers professional development (Cochran-Smith & Lytle, 1999; Grossman et al., 2009). Concepts of "knowledge-for-practice" (intended as the application of formal knowledge as the basis of an effective practice), "knowledge-in-practice" (intended as the knowledge in action that considers teaching as a spontaneous and situated performance always reactive to the specific situation), and "knowledge-of-practice" (intended as a discussion on teaching and knowledge in order to understand, theorise, and make judgments on teaching practice (Cochran-Smith & Lytle, 1999) were, then, further investigated. In this sense he understanding of meanings of professional practices during the action it-self became crucial.

> When we go about the spontaneous, intuitive performance of the actions of everyday life, we show ourselves to he knowledgeable in a special way. Often we cannot say what we know. When we try to describe it, we find ourselves at a loss, or we produce descriptions that are obviously inappropriate. Our knowing is ordinarily tacit,

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[1] Despite the importance of practice in the definition of professionals' work, it cannot forget the importance of theory in placing practice in a «coherent narrative» (Taras, 2012, p. 2), as a dramaturgy of phenomena. As M. Taras argues «theory provides the coherence and the logic for the practice» (2012, p. 2).

implicit in our patterns of action and in our feel for the stuff with which we are dealing. It seems right to say that our knowledge is in our action. And similarly, the workaday life of the professional practitioner reveals, in its recognitions, judgments, and skills, a pattern of tacit knowing-in-action. (Schön, 1995, p. 29).

The present research lies within the field of compulsory school teaching practice. Despite the efforts to explore the concept of "practical knowledge" of teaching (Carter, 1990; Fenstermacher, 1994; Grimmett, 1998), literature review about the aforementioned issues showed a lack of in-depth exploration of the concept of practice. That is to say, currently research on practice does not go beyond discourses on teaching strategies and methodologies. Moreover, even if these studies talk about "embodied" concept, they do not consider the main actor who allow that embodiment: the body. For this reason, the research project moved into a field where a more consolidated tradition in the study of professional practice is present: organisational studies.

1.2 Organisational studies and the concepts of practice and performance

As Hopwood highlights, Hager argues «understanding of practice (with its embodied emphasis) within educational research has been resourced by sociomaterial perspective» (Hopwood, 2016, p. 61). More than others, organisational studies (Barad, 2013; Bruni, Gherardi, & Parolin, 2007; Eraut, 2004; Fenwick, 2010, 2012; Fenwick & Landri, 2012; S. Gherardi, Nicolini, & Strati, 2007; Silvia Gherardi & Strati, 1988; Green, 2009; Lefebvre, 1991; Schatzki, 1996a, 2001, 2006, 2009, 2010, 1993, Thrift, 2004, 2006) provide a useful account on how practice could be investigated. An arena has been provided by the perspective of sociomaterialism in which it is possible to reflect on the nature and on the role of materiality and its relationship with social phenomena. Practice-based studies highlighted the role of body as a metaphor, background, and resource for practice (Schatzki, 1996) that also influence the understanding of work activities. What professional *are*, *practice*, and *learn* become significant questions for researchers. In order to really understand practice, Hager *et al.* (2012) describe five principles that must be followed:

1. practice is more than the mere application of theoretical knowledge;
2. practice, as a sociomaterial phenomenon, involves human and nonhuman actors;
3. practice is embodied and relational;
4. practice is not stable, homogeneous or ahistorical;
5. practice is an emergent element that cannot be assumed *a priori*.

Furthermore, the perspective of work-related learning also provided an important contribution for the discussion of the importance of practice and its connection to professionals' development. Although his argumentation did not consider the aspects of body engagement in the "circumstances of practice" (Billett, 2014), S. Billett (2001, 2010, 2011) highlights the role of practice engagement for learning processes in the workplace. Specifically, his concepts of "mimesis", «the active process of engaging […], imitating and rehearsing required performances, which constitutes microgenetic development – the processes of moment-by-moment learning», and "mimetic learning", «the inter- and intra-psychological processes that constitute order and contribute to mimesis» (Billett, 2014, p. 6) were been used to explore the three elements that it must be considered in order to investigate learning through practice. These are: curriculum practices (practices where individuals are engaged mimetically to experience an occupation); pedagogic practices (activities and interactions where individuals have the opportunity to learn beyond what they can learn alone); epistemological practices (refers to individuals' intentions and effort they use when engaged in work and mimetic learning (*Ivi.*, pp. 62-63).

In this section the aim is to show how studies in this field provided a different perspective in the study of professional practices. Specifically, here the focus shifts from issues related to strategies and methodologies applied to ones connected to the embedded live experience of practice it-self. In fact, educational research has widely ignored concepts of materiality and embedded ways of knowing for many years (Sørensen, 2007; 2009). «Professional practices and

learning [*could be*] understood as assemblages of materials, ideas, symbols, desires, bodies and natural forces» (Hopwood, 2016, p. 57).

«Professional practice in this light consists of *speech* (what people say) plus the activity of the *body*, or bodies, in interaction (what people do, more often than not together) – a play of voices and bodies. In this view, practice is inherently *dialogical*, an orchestrated interplay, and indeed a matter of co-production» (Green, 2009, p. 49).

T.R. Schatzki (2001; 2012) one of the most influent figures in the contemporary debate deeply explores the role of body in the society and the importance of understanding its meanings. The body is «not simply physicality but activity, experience and surface presentation as well» (Schatzki, & Natter, 1996, p. 5). His concept of "body-ness" became a turning point in the study of professional practices as it lets make distinction among: *being a body* (the ability to express itself doing and acting); *having a body* (highlights the Cartesian dualism between mind and body); *instrumental body* (refers to the bodily action performance). Only human do actions and only human can give intentionality and affectivity to those actions. Objects and the wider material world acquire meaning within the practice (practical meanings). But it is important to make a distinction between activity and action. As Schatzki (2001) argues activity can be considered as doings and sayings performed bodily; differently, practice recalls the space of multiplicity as it depends on the performance of activities. Schatzki (1996b) also argues the importance in focusing on doing that makes sense for someone. Differently, Gherardi (2009) refers mainly on the interactive nature of *relations* among professionals, artefacts, context, and normative and aesthetic rules that support performance in the practice; «knowing is structured in practice through relation to the objects and artefacts that are folded into professionals' everyday work» (Hopwood, 2016, p. 79).

In summary, what the sociomaterialism perspective provided for the construction of the framework is the importance of body and its meanings for the investigation of professional practices. The concept of practice provides a new way for theorising both knowledge and work in order to let researchers to

understand the materiality and indeterminacy of work activities. P. Bourdieu (1980) talks about the "feel for the game" to highlight the importance of understanding practice for the development of an affective and corporeal knowledge *in* and *through* the action; the "art" of improvise that can define the excellence performance. This perspective raises new questions.

First of all the practice is no longer considered as something just done, but it is now understood as something performed. Secondly, close related to the first one, this let researchers using new and evocative words and concepts to define the practice. Paying attention on body leaded to conceptualise work in terms of performance intended as «all the activity of an individual which occurs during a period marked by his continuous presence before a particular set of observers and which has some influence on the observers» (Dirksmeier & Helbrecht, 2008). Dirksmeier e Helbrecht (*Ibidem*) place the concept of performance between the Art (considered as a "planned dramaturgy") and the everyday life (as an adaptive and improvisational practice). On one hand there is a reference to the concept of dramaturgy that provides greater logical meaning to the "acting" as a planned and organised story developed in space and time; on the other hand there is the everyday life with routines that often show the lack of awareness of tacit knowledge as well as of the improvisational nature of situations in different contexts. In the midway between Art and everyday life there is the performance that allow to pay attention to (and account for) the work done by the body in order to manage artefacts in the work setting (Bruni, & Gherardi, 2007, p. 114) as well as the improvisational nature of the "lived scenery" (Butler, 2008). The Non-Representational Theory aims to study the concept of performance in the workplace as an activity carried out by the body: actions and events are defined by their temporal consistency (Dirksmeier & Helbrecht, 2008).

As result, the metaphor of performance used to explain professional practices let the research in these fields adopts this figure of speech widely. The management of space, time, and artefacts is now considered as a crucial skill for practitioners (Bruni, & Gherardi, 2007): «they 'set the scene' not only for what we will 'see' or 'not see,' but also for how we will react» (Shotter, 2011, p. 454).

As consequence, reference to artistic metaphors such as choreography, dance, theatre, etc. becomes widespread.

This conclusion led the literature review within another field (the third). An "intrusion" on the use of metaphor in language has been necessary in order to consciously encompass how the candidate wants to use this figure of speech to interpret teaching practices.

1.3 The role of metaphors in language

D.D. Chen (2003) defines metaphors as «a way of expressing or conceptualizing something esoteric, abstruse, and/or abstract in terms that are well known or familiar» (p. 24). The Oxford English Dictionary defines metaphor as a (1) "figure of speech in which a word or phrase is applied to an object or action to which it is not literally applicable" and (1.1) "a thing regarded as representative or symbolic of something else". «When Juliet says to Romeo, 'The light that shines comes from thine eyes,' she surely cannot really mean that his eyeballs are lighting up the chamber» (Black, 1993, p. 21). Research is challenging the traditional conceptualisation of metaphors as a figure of speech divided from the literal one (Lakoff, 1993, p. 204). M. Reddy (1993) highlights the conceptual nature of metaphor in contemporary theory as part of the ordinary everyday thought and language.

The recognition of the importance and the role of metaphorical use of language for thoughts and thinking opened up new areas of investigation in Education as well as in Psychology, Social Sciences and all the wider fields of Human Sciences. M. Taras (2007) recognises an important role of metaphors in our thinking and beliefs. «Metaphors (along with analogies, models and exemplars [Petrie & Oshlag, 2002, p. 584]) not only represent how we think and build up our concepts and knowledge frames (Reddy, 1993; Fairclough, 1994; Mercer, 2000; Lakoff, & Johnson, 2002; Ortony, 2002), but also that metaphors are an important means of creating a bridge from old concepts and knowledge to new ones» (Taras, 2007, p. 56). The immediacy of understanding metaphors implies a crucial attention in using it; «a good metaphor sometimes *impresses*,

strikes, or seizes its producer: We want to say we had a 'flash of insight,' not merely that we were comparing A with B, or even that we were thinking of A as if it were B» (Black, 1993, p. 31). As result, the tension between the literal meaning of metaphors and its ability to focus the discussion on aspects that the producer wants to highlight becomes a focus of interest for researchers. The comprehension of metaphors as well as the understanding of language in general is immediate. We cannot escape from it. When the literal meaning of metaphor is available, mind "processes" it (Glucksberg, 2008). As result, the producer must pay attention to the literal meaning of her/his metaphor. A. Ortony (2002) identifies two different approaches to conceptualise the use of metaphors. The first one comes from the idea that cognition is the result of mental construction (p. 1). Understanding the reality needs to go beyond literal information given; social interactions, contexts, and knower's pre-existing knowledge influence the perception and the comprehension (*Ibidem*). Then, although the language can be immediately perceived, it is not directly understood as it is socially constructed. Anthropology, Sociology, Linguistics, Cognitive psychology, and Philosophy of science have actively rejected this perspective affirming that metaphors are unimportant and deviant because their explanation is considered a violation of linguistic rules (*Ibidem*).

The present study embraces the consideration of metaphors as useful tools to understand concepts and how they allow the reader to exemplify issues related on particular aspects. Moreover, what it must be took into account is that on one hand metaphors can consider only few aspects of the whole concept on which they refer (so the aspects included in the literal meaning of the metaphor); on the other hand those aspects cannot be avoided in the explanation of the concept. That is to say, the author obviously uses a metaphor in order to highlight particular aspects; but she/he has to take into account all the aspects that the metaphor chosen recalls. In other words, it is true that a metaphor can considers only few aspects of the whole concepts that represent, but the reverse is not true; we have to completely consider all the aspect of a metaphor, otherwise the lecturer can misunderstand its meaning. This issue will be better explained in Par. 2 when there will be described the metaphor adopted for the present research project.

Recently, artistic metaphors helped the ways through which knowledge is constructed in order to approach different points of view to observe the phenomena. This interest has involved not only social research in general, but also educational research. V. Janesick (1994, 2000) used the metaphors of dance and choreography to explore and describe qualitative research. F. Oser and F.J. Baeriswyl (2001) described the relationship between teaching-learning activities and students' learning processes as an "educational choreography" to represent learning.

The contribution artists/researches gave to research processes in many fields of human sciences has grown the necessity to explore their studies in order to understand this new and innovative point of view on society.

1.4 Artists'/researchers' contributions on the role of body in the research processes and embodied ways of knowing

During the last decades, artists have actively generated their personal contribution in the field of scientific research. «Artists have the potential to significantly contribute to the generation of new understanding, not only of artistic practice, but also to knowledge and to society in general» (Barbour, 2011, p. 86). Investigating different topics, artists led to create new ways to understand phenomena. For example, in Education, despite the use of Art and artistic concepts as merely mediator of teaching and learning processes, the focus of interest, here, is the use of these evocative and different (from traditional ones) concepts as lens for the study of practices both for teachers and researchers. The evidence of this "creative turn" carried out thanks to the "alliance" among artists and researchers can be clearly seen in different fields (Bagley & Cancienne, 2002; Duerden & Fisher, 2007; Foster, 2011; Pentassuglia, 2017). The "International Yearbook for Research in Arts Education" (O'Farrell, Schonmann, & Wagner, 2014; Schonmann, 2015) provided a wider and exhaustive framework of artists and arts contributions in the Educational Research.

One of the main authors that helped the creation of the present framework is K. Barbour (2011). Her brilliant book "Dancing across the page" addresses the

issues of performance studies and themes such as power, activism, and cultural, gendered, and personal identity from the point of view of phenomenology, feminism, and postmodernism. As dancer and researchers she adopted the lens of embodied knowledge and imagination to explore the mean of action within the society. Her discussion of embodied ways of knowing was one of the main contributions on the argumentation of practice; the investigation of body from the point of view of a dancer matched the lack found in the first (educational) literature review (see Ch. 1, Par. 1.1). In fact, embodied ways of knowing as an alternative epistemological strategy correspond to the shift, in academic settings, from traditional to innovative ways of knowing and research processes. «Instead of considering the body as only an instrument or tool, as it often is, we would like to encourage a broader view of the body as a (locus) of discovery» (Cancienne & Snowber, 2003; Halprin, 1995, 2000). Redefining and reconsidering themes, patterns, and relationships to investigate phenomena is the starting point of the adoption of embodied ways of knowing within the research process that now requires new questions, new methods, and new representational strategies (E. Eisner, 2002; Fraser, 2004).

«I have attempted to link together some of the processes of research, creativity and knowing. In attempting to write or map experiences and ideas, I find that I need to move to express embodied knowledge through dancing. But this presents an ongoing tension for academic researcher» (Barbour, 2011, p. 97).

Fig. 2 Embodied engagement in arts research

Received Knowing
Subjective Knowing
Procedural Knowing
Constructed Knowing

Literature Knowledge
Perspective/Question
Methodology
Methods

Embodied Knowing

Illumination/Action/Performace
(verification, elaboration, crystallization,
discussion, conclusion)

Rehearse/Refine
Choreograph/Score
Experiment/Improvise
Vision/Ideas/Themes

Incubation

Preparation

Research/Setting the Scene

Source: Barbour, 2011, p. 96

K. Eliot (2007) in her book "Dancing Lives" explored the history of dance through the point of view of five dancers bodies from Russian, European, and American tradition. «Dance is hard to capture in words, and the difficulty of a historical project documenting dancers' careers is magnified when the historian sets about to map out the physical, emotional, and kinaesthetic experiences of dancers dancing» (Eliot, 2007, p. 4). Once again this dancer's perspective on the theme shows a fascinating point of view through which the artist/researcher investigate the phenomena.

V.J. Janesick (1994; 2000) was another important source in this literature review. Her works on qualitative research use the metaphors of dance and choreography to explore methods, steps, and strategies of this approach. Her studies leaded the discussion on another level exploring the use of art-related metaphors as lens to interpret cultural, social, and educational phenomena. It was her contribution that made necessary the "intrusion" in the field of metaphor and language.

Another important contribution that inspired this research project come from the works of M.B. Cancienne who changes the way through which research data are presented and showed (Bagley & Cancienne, 2002; Cancienne, 2008; Cancienne & Bagley, 2003). As choreographer and researcher she explored the

ways to translate written words from a research report (for example) to performance. The project carried out with C. Bagley, took place in an educational context with the aim to explore the influence that the school's choice has on families who have children with special needs. What is relevant to the aim of this paper is the interesting construction of the final performance that M.B. Cancienne describes carefully.

To conclude, all the literature review on the methodological approach adopted in the present research project (see Ch. 2) is permeated by artists/researchers contributions within the scientific research (Leavy, 2009, 2015; Snowber, 2002). As explained in the article/chapter *"The Art(ist) is present": Arts-Based Research perspective in educational research* in this Doctoral thesis the contribution arts and artists could give within the research process includes a variety of aspects, from an epistemological level (related to new and innovative ways of knowing, interpreting, and conceptualising concepts and phenomena) to a pragmatic one (through the definition of new research paths, methods, strategies, and forms of data representation).

2. Laban Movement Analysis (LMA) and Labanotation for Educational research

Rudolf Laban (1879-1958) was a dancer, choreographer, architect, painter, and theorist of movement who developed, in the first half of the last century, the first systematic system of movement analysis (Labanotation). He also created a qualitative movement analysis as a guideline for any kind of movement interpretation. His Laban Movement Analysis (LMA) is based on four key elements: body, space, shape, and effort (Hackney, 2002). These elements are combined each other in order to identify a movement style that is unique for every person and they are also useful to explore relational aspects (J. Chen, Lin, Tsai, & Dai, 2011). «Relationships between people can be experienced and looked at in new ways by becoming aware of the quality of the movement in the relationship. To do this, use the above elements of movement to help you become aware of the

moving quality of each person and how the qualities "converse" with each other» (Hackney, 2002).

Although Laban developed his system of movement analysis in the context of dance, in order to transcribe dances on paper and study dancers' movement, there are many uses of it in different fields as for example in anthropology, ethology, and industrial production. Recently, Loke, Larssen, and Robertson (2005) used the Labanotation as a tool for the movement-based interaction. Specifically, they used it in order to provide a digital input with body movement information as «some researchers have found video-based analysis and representation of human movement to be more efficacious for game design than graphical notation systems such as Labanotation» (Loke et al., 2005). They identified three different description of movement that can be done thanks to the LMA: *motif* (when essential aspects of movement are simply described); *effort-shape* (when qualitative and expressive aspects of movement are described); *structural* (when there is an accurate and complete description of movement in terms of measurable elements). These kinds of level of movement description also represent a sort of complexity development in a body movement analysis.

The main principle of LMA is that every movement has an inner cause (conscious or unconscious) and then observing body movement can reveal many aspects of inner life and personal motivation. Thus, the categories he found, when combined, are able to obtain that kind of understanding. «Any movement, even the most simple, takes place in *space* with some part of the *body*, moving with a particular *quality* (Effort)» (Bales, 2006). In dance education these aspects are well explored not only for the stressed use of body movement as the central aspect of the teaching-learning process, but also for the importance of language developed in dance techniques.

> «Unfortunately, many students (and alas, some teachers) of ballet do not know what the terms mean: that fondu is to melt, jeté is to throw, allongé is to elongate, or that ballon refers to the quality of resilience or spring in a jump. Some steps are literally named for the quality inherent in the execution (the Effort component). Other terms refer to spatial concepts such as: en arrière (to the back), en avant (to the front), en

dedans (toward the body, inward), en dehors (away from the body, outward). Some terms combine Body and Space, such as rond de jambe, a circular motion of the leg. Other terms serve as shorthand for body positions, such as effacé devant» (Bales, 2006).

It can be found other uses of LMA in psychology. Specifically, Levy and Duke (2003) used LMA's categories for the study of personality and movement style. In fact, Laban's theory had, and still has, an important influence in this field of research works. «Laban recognized the appearance of all kinds of discordant body tensions and rhythms in people who for some reason lacked social adaptation and personal well being. He observed the definite connection between these disharmonious rhythms, muscular tensions, and emotional conflicts» (North, 1972). Lamb (Lamb & Watson, 1987) developed the Posture-Gesture Merging system with the aim to analyse non verbal behavioural patterns of businessmen (mainly) in order to improve their communication skills. Afterward, Amighi (Amighi, Loman, Lewis, & Sossin, 1999) developed the Kestenberg Movement Profile (KMP) for studying personality and interpersonal interaction through the observation of movement patterns.

These few examples found in the literature review concerned the work of Rudolf Laban and the applications of his theory of movement observation show the great impact of these kinds of analysis within the academic research. Focusing the discourse in the educational research, although the wide diffusion and interest in body movement analysis across different field, there are very few academic studies that developed a systematic analysis of actors' movement in educational settings. In fact, even if there is an important interest of researchers about the concepts of teaching practice and teachers performance, the literature review in this field lacked in the adaptation of movement analysis (see above Par. 1).

Recently, M. Castañer (2009) applied her knowledge in dance and body movement in order to identify categories that allow the interpretation of these aspects. She developed an observational tool called OSMOS (Observational System of Motor Skills) that can be applied in different fields adapting its criteria (Carlota Torrents, 2011; Castañer, Camerino, Anguera, & Jonsson, 2013; Castañer, Torrents, Anguera, Dinušová, & Jonsson, 2009; Castañer, Torrents,

Morey, & Jofre, 2012). Although she represents one of the very few examples of body movement analysis in educational context (Castañer, 2009) and an important expert able to connect artistic competencies with academic ones, there still is a missed link. Many of analysis explored remain aseptic with respect to the context. In other words, even if there is a need to carry out research studies on the analysis of teachers movement if we concretely want to talk about teachers professional practices, embedded knowledge, and performance, we cannot forget to contextualise these kind of analysis. A depth analysis of teachers' movement, if on the one hand adds information about their work; on the other hand it remains unhelpful for them if it is not contextualised and integrated with information and data about their pedagogical and instructional aspects of their work. For this reason, although the work of M. Castañer represents an important source for the development of similar research paths, further studies need to be carried out in order to cover that lack.

LMA and Labanotation could be considered an important tool in this sense. The analysis of dance movement and/or performance does not differ to the analysis of teachers' movement during the class. Principles, criteria, and standards are the same if the same theoretical framework (in this case the LMA) is used. What it needs to be changed is the contextualisation of the analysis. Teachers' movement analysis needs to be combined with a pedagogical analysis of their work in order to really explore and study teaching as a performance and not as a "mental work" (if the focus is only on pedagogical and instructional aspects) or an "aesthetic work" (if the focus is only on body movement). That is to say, categories identified in the LMA and used for the transcription of Labanotation need to be combined with information about activities, interactions, assessment, discussion and other pedagogical aspects of teachers' work.

3. Creation of framework

«How does someone who has not previously 'taught' in a formal and professional sense become 'some body' as a teacher? How do they acquire a teaching habitus - a body in which the attitudes, gestures, vocalizations and predispositions it has are recognizable to other bodies as 'teacherly'?» (Reid, & Mitchell, 2015, p. 89).

As stated above, the first step of literature review (see Par. 1.1) highlights the lack in the investigation of teachers' practice and teaching style that did not explored in-depth the dimensions of body, corporeality, and materiality for its definition. For this reason there was the need to further delve deeper in these concepts as the candidate argues that in order to talk about teaching practice, the dimension of body cannot be avoided. This Doctoral project takes start from this assumption considering (specifically) the body as the metronome and the wheel of teachers' professional practice. This intuition was confirmed by the literature review within the field of organisational studies (see Par. 1.2) where many take into account the role of body and its meanings. The study of body and its relationships in the workplace becomes a turning point in the educational research (but not only). What it could mean to *be*, to *practice*, and to *learn* as a professional become significant questions for researchers. «Practice and expertise are always embodied, in ways that are not always discernible to traditional research» (Green, & Hopwood, 2015, p. 5).

At this point as the literature review suggested the use of metaphors (see Par. 1.3) and, specifically, artistic metaphors helped researcher and practitioners to better understand phenomena and address issues that otherwise should not clearly understood. As dancer and researcher this perspective suggests to the candidate that "choreography" could be considered a suitable metaphor for the interpretation of teaching practices as a bodily performance (Blumenfeld-Jones, 2002; Cancienne, 1999; Cancienne & Megibow, 2001; Stinson, 1995). Based on what explored in the literature review of metaphors "choreography" must be clearly defined in order to better understand the aspects that the present study wants to highlight. Foster (2011) defines the term choreography as a structuration of actions in many settings that have in common an intentional and regulated movement. This definition of choreography allows to observe work and, in particular, teaching from the point of view of body and embodied ways of knowing and acting in professional practices. Furthermore, Adshead *et al.* (1988) define "choreographic style" as «the typical selection of materials by a choreographer, with regard to movement vocabulary, dynamic range, use of space, structuring devices and so on, in relation to thematic material».

Following these last two definitions of choreography and choreographic style the present Doctoral research project aims to study teaching practice as a choreography, as an artistic practice performed by teachers in the classroom.

Research questions stated to develop the project are as follows:

- Is it possible to identify a choreographic style in teachers' activities?
- Can Art help to understand bodily practices and attitudes in teachers' work?
- Can we link the "bodily literacy" of teachers with their pedagogical competencies in order to perform the analysis of teaching choreographic style? How can it be possible?

The second part of the present thesis shows the four articles that represent the outcomes of the research project. The first one *"The Art(ist) is present": Arts-Based Research perspective in educational research* explores in-depth the methodological approach used for this study: the Arts-Based Research. Adopting a movements analysis borrowed from dance notation's tradition, the present research project takes place in the field of ABR practices following P. Leavy's definition of them as «a set of methodological tools used by researchers across the disciplines during all phases of social research, including data generation, analysis, interpretation, and representations» (Leavy, 2015: IX). The first article, then, explores this almost unknown methodological approach specifically addressing the dance-based methods and the use of dance in educational research processes.

The second article *Beyond the scene: explore VET teachers' movement analysis* presents the pilot study performed as the first step of the research process. In this study both the methodological approach and instruments were tried out in order to fix them for the whole sample.

The third article *"Shadow Movements": Teachers' Profession and Performance in the Arts-Based Research Perspective* presents the whole project with all results found and the instrument created. All the issues explored above and criticalities emerged from the pilot study are addressed in the discussion.

Finally, the last article *Inside the "body box": Exploring Feedback in HE* represent the first application of the research protocol developed in the present doctoral thesis. Specifically, the Laban principles and categories were used in order to explore HE teachers' use of feedback during the class. Moreover, data gathered from the observational grid developed thanks to the rationale developed was compared with data gathered from a questionnaire of teachers' perception of feedback.

At the end, the Discussion section recalls all the data gathered and the literature reviews in order to outline some implications of the present work and further research paths.

2. "The Art(ist) is present": Arts-Based Research perspective in educational research[1]

> "The function of the artist in a disturbed society is to give awareness of the universe, to ask the right questions, and to elevate the mind."
> *Marina Abramovic*

Abstract

A growing interest has been seen in the last two decades in a variety of fields. Although some authors highlighted the importance of this type of research, there is still a poor scientific understanding of this process. The first serious discussion and analysis of the construction of knowledge emerged during the 1900s. In the field of humanities, questions have been asked regarding the use of traditional research paradigm in terms of its limitation of understanding the complex subjects. In line with this perspective, the current article provides an opportunity to advance the understanding of new research paths. Specifically, after an overview on the traditional research paradigms, particular references are devoted to the Arts-Based Research (ABR) approach and to the use of arts within the research processes. Then, this contribution provides a deep exploration of dance-based methods for educational research. As a transdisciplinary approach the ABR can be used in different fields. For this reason, the current article tries to provide insights about the use of dance-based methods in the educational context. An in depth literature review will highlight the issues linked to the use of dance in research paths highlights different connotations of it within the research process. The author identified and explored three main uses of dance in academic field.

Keywords: arts-based research; dance-based methods; educational research; methodology
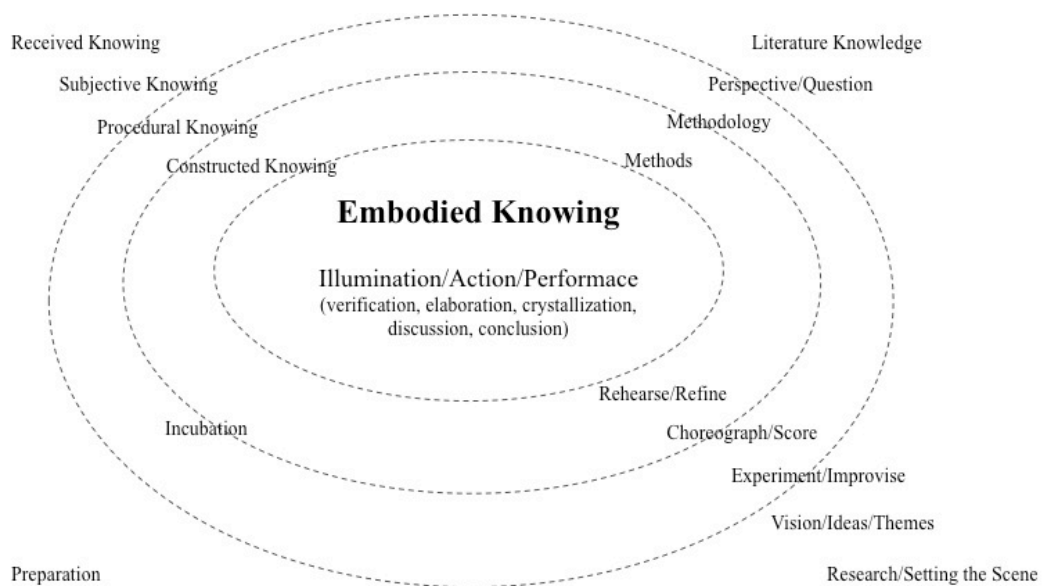
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1. Warm-up: defining the Arts-Based Research

During the last Century, the research process as a cognitive process rather than a mere procedure aimed to verify hypothesis was developed. This represents an important turning point for the scientific research: the qualitative paradigm begins to be accepted by many researchers in contrast with the positivist view of reality. On the one hand the positivist paradigm considers the understanding of phenomena that appear to be measurable, tangible, and observable; on the other, the qualitative approach focuses on the common qualities of phenomena in order to achieve a deepen and contextualised understanding of them. As a consequence, new methodological approaches have been explored. For this reason, the current paper aims to explore a specific methodological approach that imposed itself during the 1970s and 1990s in the social and educational context: Arts-Based Research (ABR).

The use of terms such as "art" and "artistic" in the academic research can be traced since within the 1914s and the 1940s. For example, Swiss psychologist Carl Jung suggested the *art imagery as inquiry* (Chilton & Leavy, 2014); in 1940, American philosopher Theodore M. Green used the term *artistic inquiry* in order to state the artists' involvement in the research process. Successively, during the second half of the 20th Century, the idea of "art-as-research" began to be scientifically defined with the rejection of dualism and positivistic conceptions of truth and science. This shift made way for the expansion of what it could be considered acceptable within academic research (Leavy, 2009; Sullivan, 2010). In 1975, Elliot Eisner introduced the term *arts-based education research* (ABER). He has been one of the most important supporters of the application of art inside research processes. However, Shawn McNiff punctually defined *art-based research* (ABR) as it is known today. In his definition, ABR included all practices that use artistic processes as a way of investigation and knowing (Koch, 2010; McNiff, 1998, 2011, 2012). Greenwood (2012) argued that practices based on the Arts-Based Research approach respond to the need to both bring out and share understandings and phenomena that are difficult to read properly through traditional approaches.

In this scenario of evolution (and re-evolution) of the epistemology of educational and social research, ABR can be considered as a new paradigm where new forms and research methods appear. These methods employ the evocative force of aesthetics in order to reject and refuse the modern dualism of art-science (Eisner, 1981; McNiff, 1998). Consequently, in recent years, Arts-Based Research has been recognised as a legitimate and useful methodological approach especially in education field (Greenwood, 2012).

The impact of this recognition was that knowledge is considered not only as a matter of mind, but something embedded and incorporated. In this regard, K. Barbour suggested that *embodied ways of knowing* (2011) in order to highlight the importance of a "total" involvement of the researcher over the setting that she/he wants to understand, but also in the wider research process. Knowledge is not something out of our world or divided by inner life; it represents a close relationship between body (with its perceptions, sensations, and reactions) and material world. K. Barbour also highlights the embedded nature of ways of knowing. She described an embedded knowledge, created and constructed by experience and by what we learn from others.

Fig. 1 Embodied engagement in arts research

Received Knowing — Literature Knowledge
Subjective Knowing — Perspective/Question
Procedural Knowing — Methodology
Constructed Knowing — Methods

Embodied Knowing

Illumination/Action/Performace
(verification, elaboration, crystallization, discussion, conclusion)

Rehearse/Refine
Choreograph/Score
Experiment/Improvise
Vision/Ideas/Themes

Incubation

Preparation — Research/Setting the Scene

Source: Barbour, 2011, p. 96

Fig. 1 represents the distinction that K. Barbour suggests between three processes: the construction of knowledge; the research process; and the choreographic process. This kind of comparison becomes an interaction in terms of *embodied ways of knowing* as a new epistemological strategy linked to the change of different and innovative ways of knowing and research. From this perspective, studies on experience and its role in the learning process are considered to by quite fundamental; for example, the D.A. Kolb and R. Fry's model of experiential learning (1975) is considered to be one of the most important frameworks. The researcher's body engagement and awareness entail new questions about how we can develop, in a new and creative way, a research process based on an embedded construction of knowledge. The model of experiential learning places the concrete experience (or the artistic practice) inside a continuous cycle of reflection. This process highlights the importance of a reflection on experience, followed by an appreciation of it and identifies a further action plan of a new practice (Barbour, 2011).

The methodological approach that emerges uses the potential of Art in order to reach a deep understanding of phenomena. ABR can be defined as an effort to go beyond restrictions that limit the communication in order to express meanings that otherwise could be unintelligible (Barone & Eisner, 2012). From a methodological perspective, ABR could be understood as a systematic use of processes and artistic expressions as main way to understand and analyse experience not only from the point of view of the researcher, but also from stakeholders' perspective (McNiff, 2004): «Artists have the potential to significantly contribute to the generation of new understanding, not only of artistic practice, but also to knowledge and to society in general» (Barbour, 2011, p. 86).

Arts-Based practices support research process helping researchers to access and represent several points of view that otherwise are generally overlooked by traditional research methods (Leavy, 2009). The legitimation of artistic practices passes through the research of meaning that allows the creation of a connection among new research methodologies in order to increase the regard to experiential and innovative ways of knowing. The acquisition of *multiple meanings*; this

means to reach a wider and more complete vision of reality that not only opens up to new questions and ways of knowing, but further allows new kind of communication with stakeholders and all actors involved in the research process.

In Education a/r/tography is defined as «a hybrid form of practice-based research within education and the arts» (Gouzouasis, Irwin, Miles, & Gordon, 2013, p. 2) and it is used as a research approach due to its ability to focus and concentrate the efforts on corporeal, unsaid, and sensible experiences of artist/researcher/teachers' lives (Springgay, & Irwin, 2005). With particular reference to the field of teacher education these types of approaches use the meaningful experiences of these three actors (artist, researcher, and teacher) as the main way to improve embedded ways of knowing in professional contexts.

The success of ABR entails several implications and many forms of Art are involved in these research paths. Five of them could be considered the most widespread methods.

–   *Narrative inquiry or narrative method*: based on the ethnographic method and on qualitative interviews, the narrative inquiry could be defined as a participative and collaborative method that involves participants' life in a process aimed to highlights multidimensional meanings linked to the phenomena investigated. Data gathered are analysed through narrative analysis with the aim to provide evidences from the experience described (Clandinin & Rosiek, 2007; Kim, 2006). Fiction is wider used as a form of representation of research paths and findings (Banks, 2008; Berger, 1977).

–   *Poetry Research*: the use of poetry as a form of data representation and research method appears following the need to find new ways to represent research findings that can go beyond boundaries of qualitative paradigm (Brady, 2004; N.K. Denzin, 1997; Furman, 2006; Hartnett, 2003; Hirshfield, 1997; Langer & Furman, 2004).

–   *Music Research*: music as a model for support qualitative research (Bresler, 2005; Casey, 1992; Jenoure, 2002; Morrison, 1992) during recent years a key instrument was identified to interpret and study social reality not only through the metaphor of music, but also as an instrument for data analysis.

– *Performance Studies*: in this perspective theatre becomes a research process, an instrument for data collection, and a form of data representation (Finley & Finley, 1998; Frisch, 1990; Saldaña, 1999, 2003, 2005; Thorp, 2003).

These expressions explain how Art is not only considered as a mere mediator for learning processes, but it becomes something else, something more complex.

As part of a wider research project linked to my doctoral research, this article concentrates the discussion on a literature review about the Arts-Based Research methodological approaches. Specifically, as researcher and as dancer the author improved a specific practice within of ABR approaches: dance-based methods[3].

2. Evolving perspectives: Dance-based methods

Unlike other forms of art, dance is contemporaneously musical, performative, visual, autobiographical, and narrative. The term (as well as its meanings) is often linked to the term "choreography" that allows a different articulation of this form of art. Generally, the term choreography refers to a structured movement, not necessarily a human one. It is often the case that choreography is used in contrast with improvised and instinctive elements of a performance. Dance and choreography can be considered as a reflection of cultural values, as well as a production of them. C. Novack (1990) and other authors such as R. Martin (1996), M. Franko (2002) and T. DeFrantz (2004), have firmly challenged the idea according to which choreography works only through aesthetic, divided from social and political experiences (Foster, 2011). The Oxford English Dictionary's definition of choreography, reports two meanings of this term:

- *the art of dancing*;
- *the art of writing dances on paper*.

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[3] This approach has been used to explore teaching practice of secondary school teachers (working papers).

From an etymological perspective, choreography derives from the Greek term *choreia*, and it has two meanings: a set of dance, rhythm, and vocal harmony expressed in Greek chorus; and the writing of movements. However, the first use of the term was woven to two Greek roots: *orches* (the space between the scene and the audience where the chorus performs) and *chora* (a general notion related to space and sometimes used with reference to countryside and regions). It is following this second meaning of the term that choreography, within 16th and 17th Century, was often used to indicate the process of mapping regional area. In 18th Century *choreography*, understood as the art of dance notation, becomes the essential base through which the creation, the performance, and the learning of dance take place. Having been forgotten during the 19th Century, the term reappeared with a new attention during the last Century with a general meaning connected to the individual expression performed through body movement.

Today the term choreography has a wider meaning and it refers to the construction of movement in many settings that have in common an intentional and regulated movement. «In the last year I have seen the word 'choreography' used in our local newspaper, The Los Angeles Times, to describe troop movements in the war in Iraq, the motions of dog whisperer Cesar Milar, the management of discussion at board meetings, and even the coordination of traffic lights for commuter flow – all their applications of the term in addition to the patterning of movement observed in a dance» (Foster, 2011, p. 15).

The fundamental process of translation of body movements into words and symbols becomes an important topic also beyond artistic settings[4]. Dance is no longer considered only as an artistic discipline; it has assumed a deeper meaning, as a mirror of something that cannot be understood through other points of view. Greenwood (2012) identified two uses of ABR in the research project. On the one hand, arts can be considered as tools to study, collect data, analyse, and represent findings; on the other hand, the research process is an investigation of art works in order to deeply understand and describe them. This article will focus on the first

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[4] Several are the attempts to codify human movements: Feuillett's system; Arbeau's narrative; Tournefort's taxonomy; Eshkol-Wachman system; Benesh Notation; Labanotation (Foster, 2011).

approach. Art becomes a posture, a lens, and an instrument through which it can be possible to study phenomena thanks to different perspectives and sensibilities.

Literature review on issues linked to the use of dance in research paths highlights different connotations of it within the research process. The author identified three main uses of dance in academic field; dance could be seen as:

1. lens and *habitus* to observe the reality;
2. research method and instrument for data collection;
3. "alternative" form of data representation.

These previous perspectives represent the three "souls" that Art (in this case dance) could have. As a posture and habitus, as a method and instrument, and as a data representation; thus, dance becomes, in the Arts-Based methodological perspective, a support and a new way for researcher's purposes. In fact, these connotations could be interpreted and understood as different uses of dance in a wider research path.

2.1 Observe the reality: dance as lens and *habitus*

The consideration of dance as an interpretative category of the world implies a special attention to its main "instrument": the body. On the one hand, the body becomes a reflection of meanings both hide and few recognisable (Laban, 2011), on the other hand, it is concerned with the awareness of its meanings and how it can become a crucial aspect of the acquisition, for researcher itself, of a habitus and a posture that allow a better understanding of the phenomena.

Starting from the studies of M. Foucault (1978), the body is set at the centre of studies on society (Bordo, 1993). Hence, the attention is focused on what is defined as an *inscriptive body*: that is to say, a place where social meanings are created and remained. Specifically, it is within the concept of *lived body* (Grosz, 1994) that the connection with the research process becomes evident. This concept is closely related to the experiential knowledge of individuals. «The body is not viewed as an object but rather as the 'condition and context' through which

social actors have relations to objects and through which they give and receive information» (Grosz, 1994, p. 86).

S.W. Stinson (1995) considers the body as a microcosm of the world and a way to achieve a deep understanding of its meaning; from the perspective of phenomenological approaches to the study of knowledge construction, she suggests that the body could be considered as a container of memory and experience. For this reason, an individual's knowledge can be revealed through it in unexpected ways. A focus on bodily dimension becomes more meaningful if we consider the social and relational plane where bodies act. Here the role of the researcher acquires a new light that allows observing various meanings closely connected to her/his presence (physical as well as mental) within this context. In the artistic field, numerous studies are related to the relational nature of knowledge that occurs through body meanings. During the first years of 20th Century, J. Martin highlights the presence of a strong relationship between the dancer on the stage and the audience, and a fundamental connection between movement and emotion. Again, during the first decades of 21st Century neurophysiologists confirmed this idea and they recognised an intrinsic connection between the dancer and the audience based on the discovery of mirror neurons (Foster, 2011). These studies proved that, at the cerebral level the same zones are activated both when observing an action or perform an action. Then the relationship entails sharing not only spaces, but also emotional conditions resulted by somatic reactions connected to what the individual observes. These assumptions could influence the development of educational practices and research paths. In 2000, following the revolution paradigm of homunculus[5] by W. Panfield, questions shifted from the anatomical level (related to the awareness of all the parts of the body) to one that refers to the sensibility and the attention on what it could mean a gesture, an action, and a movement that is necessarily in relation with the world that it tries to change.

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[5] The homunculus is the representation, in the cerebral cortex, of the motor and sensitive systems concern of all parts of body. His parts have a different size that depends on the sophistication and the sensibility of movements.

These implications allow several reflections in the field of educational research. Let us consider heir importance, for example, of the role of the researcher within the research setting, or further (as highlighted in the next section) of the different forms of representation and communication of research findings.

2.2 Dance as research method

Although literature is plentiful of studies on dance as principal source of cultural meanings (and then as the object of the research), (Cohen, 2000; Eliot, 2007; Fairfax, 2003), only in the last twenty years, dance has begun to be considered as a method and an instrument to acquire knowledge. Particularly, it is in the field of qualitative research that it was largely used.

ABR is considered as a creative grounded research path. For this reason, in relation to *dance-based methods*, currently there are no protocols to establish *a priori* the entire path to be followed. Based on her/his own competence the research/artist has the responsibility to choose the right key to use dance at the service of the research aims. In order to provide some clear examples, we summarised some key studies inside boxes 1, 2 and 3. These studies used dance as a method for data collection; they represents only a few examples within the great set of ways in which dance could be used in the research process, but the author considers those as representative of very different ways of using dance as a method.

The first box briefly explored how dance instruments can be used inside the research path. This particular example shows how dance can contribute improving research path with innovative and different methods. In this case the Laban Movement Analysis (LMA) was used in order to explore dance movements. R. Laban (Laban, 2011), one of the most influent theorists of movement, developed a theory of movement and a coding system (Kinetography Laban, better known as Labanotation) for the analysis of human movement. Although his work has been employed predominantly in the dance field (especially to code and analyse ballet

choreography), the Labanotation coding system and his theory of movement have been increasingly adopted in the other contexts of academic research.

Box 1

Diane C. Freedman (1991) explored Romanian couple dances in order to study gender relations and meanings. Her innovative aspect consists in the use of Laban Movement Analysis (LMA) as research method for a systematic study of movement that allowed her to develop a second research aim: a kinaesthetic analysis for the study of movement as *way of knowing* (Barbour, 2011; Sklar, 2000). Based on the first step of data collection through videotaping, Freedman created a list of indicators "effort/shape". She then separated the videos in five seconds intervals for a further analysis. At the end of the research path, she defined cultural profiles on the base of patterns found.

Box 2 explores a different example of dance as method; in this case corporeal activities are used to understand their effectiveness compared to multimedial ones.

Although Beck, Martinez and Lires's studies do not explore correlations deeply, what is important for the aim of this article is to see how the Art, once and again, can be used as source of transversal interpretative skills indicators useful for data collection.

Even if knowledge in dance domain has been mostly considered as emotional, irrational, and practical it has been marginalised as something not really linked to social and cultural meaning (Gehm & Husemann, 2007). For this reason, Box 2 provides important insights for the understanding of dance as something social and cultural defined and, then, as a meaningful source itself.

Box 2

A second example of the use of dance as an instrument for data collection is represented by the study of Beck, Martinez and Lires {Formatting Citation} on the analysis of interpretative skills for multimodal and multicultural texts. The study aimed to identify differences between interactive media and direct experiences of dance more influences individuals' interpretative skills.

During a preliminary step of the study, two experts were observed: the first one was a historian and the second one was a composer. Researchers asked them to interpret an Aztec dance called Concheras. Thanks to their work, the researchers found four interpretative skills that are further used as indicators for the observation of subjects involved in the research. The sample of 60 participants was divided into two groups: the first one was considered the control group and the second one was considered the experimental group. Group 1 learned the dance Chocheras only with dance lessons. Group 2 learned it through dance lessons, but they also saw a video of a performance using a 90 minutes interactive CD-ROM. As a result, authors observed that the experimental group obtained higher scores in the test on interpretative skills.

The third Box represents another example of how dance, as a physical and corporeal activity, can be considered as a specific way of knowing. In this case, C. Snowber emphasises the role of movement in improving auto-reflection processes. In her latest book "Embodied Inquiry: Writing, Living and Being through the Body" (Snowber, 2016) described as "poetic and visceral language", she explores the role of body as a place of inquiry, learning, understanding, and perceiving. Her inspirational writing guides the reader in the exploration of ways through which it can be possible to connect with inner life of our body and its meanings.

Box 3

Snowber's study (2002) aimed to observe the connection between autobiographical narration and dance. Specifically, the author argued that improvised dance could be used to open up dialogues as it can reveal multiple meanings and dimensions of inner world: «there are kinds of data that our bodies experience before our minds» (Foster, 2011, p. 188). Dance and movement are then considered as a meaningful experience to develop self-awareness as well as to explore inner world. «The process of improvisation and creation in all the arts is an embodied ritual which leads us into not-knowing, and ultimately into knowing» (Snowber, 2002, p. 28).

These studies, even if briefly outlined, serve as meaningful examples of how Art can be used within the research process as a support to lecturers. Although these boxes represent only three examples that the author selected based on her literature review, the aim of this discussion was to show the ways through which dance can actively contribute to different and innovative research paths providing new point of views on phenomena.

These kinds of research processes are closely related to the sensibility of the researcher. Mainly in the American context, these approaches wider affirmed their importance in favour of an "alliance" able to highlights the complexity of social and cultural phenomena.

2.3 Representation of data through dance performance

The use of dance as a form of data representation is still less known in the academic field compared with other arts explained above. The real difficulty is the multiplicity of meanings that the body has; the researcher is required to pay attention to all of them (Blumenfeld-Jones, 2002). «Researchers must be very careful to use movements that convey only a range of meanings that are appropriate to the theme of which he or she is communicating dimensions» (Foster, 2011, p. 191).

A further step in the scientific field will be the development of the practice of representing findings through ways and method that go beyond the traditional texts represents. This process takes place as a "parallel" research path and it becomes essential if we think about the importance to be clear and effective in the return of research findings.

An inspirational example can be located in international studies, which is C. Bagley and M.B. Cancienne's (2002) research with the title *Dancing the Data*. Authors combined their scientific competence (C. Bagley) with artistic ones (M.B. Cancienne) with the aim to represent in a choreographic performance the research findings. The project took place in an educational context with the aim to explore the influence that the choice of school has on families who have children with special needs. What is relevant to the aim of this paper is the interesting construction of the final performance that M.B. Cancienne describes carefully.

After a first preliminary step for the familiarisation with the educative context in which the research took place, M.B. Cancienne narrates her choreographic work highlighting some key steps:

- A deep study of data (primarily interviews) and constant comparison with her colleague for a better understanding of the entire research process;
- Choice of "objects" to be represented in the performance and what style is better than another;
- Revisit data collected in order to find recurring topics that could be more representative than other;
- Performance construction;
- Presentation of the *performance* to a "chosen" audience (colleagues and students) in order to discuss about the effectiveness of it and to collect *feedback*;
- Modification and creation of final performance.

Imagine depicted in Fig. 1 shows two actors: on one side the researcher with his voice, on the other side the artist with her movements who attempts to perform the imagines derived from the data collected (participants' voice). This process

reflects the creative process showed above in relation with the research process and the process of knowledge construction (Fig. 1).

Although the great impact of this kind of works, still less are studies which adopt, at an international level, these research protocols with the aim to represent research findings "artistically" (Mienczakowski, Smith, & Morgan, 2002; Rogers, Frellick, & Bebinski, 2002).

The study, the choice of data, the reflection of the results, the research of the "better way" to represent findings, the "assembly" of a coherent and clear story, the "test" of the performance for the collection of feedback, are only some of the steps that the artist/researcher must consider in order to create an artistic performance anchored to data and functional for an effective divulgation (especially in the stakeholders community) of research results. The choreographic process becomes a real research path: «The approach of integrating the choreographic process as central to research begins to shift the perception that we have bodies to the reality that we are bodies. […] The knowledge intrinsic to the choreographic process can contribute to the larger paradigm of how research becomes a continued place of discovery, one that includes a physical apprehension and expression of the world» (Cancienne, & Snowber, 2003, p. 239).

P. Ottoboni's paper (2014) is an illustrative and evocative example of a deep understanding of the choreographic process, (of *decomposition*, *composition*, *transformation*); in fact, the contemporary dance performance *Naveneva*[6], is carefully described from the basic idea, through the research process (real work of study and reflection), and the creation of final performance.

These experiences could help the reader to understand this kind of research that is able to integrate the traditional research path, which often end with the creation of a research report or an academic paper. This is a very important aspect of the separation still present between the world of scientific research and the practitioners who can rarely access the scientific texts of research findings.

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[6] Interpreted and conceived by Silvia Bertoncelli, Chiara Guglielmi, and Paolo Ottoboni – direction of Silvia Bertoncelli.

Works such as Picasso's *Guernica* and Brecht's *Mother Courage* are notable examples of how art-based reports of investigation are used to provoke public awareness, shifts in understanding and catalysts for action.

Such considerations bring to light how Art, once again, is transformed into a precious "ally" able to embellish the research process and to put together the world of scientific research and the society.

3. Conclusions

In light of the recent innovations and changes in educational and social fields, I argued that there is a need to develop methodological approaches as well as their epistemological bases. The contribution showed the perspective of Arts-Based Research and, specifically, dance-based methods as a valid alternative for a development of traditional research paradigms (Leavy, 2009; Cancienne, & Snowber, 2003). Three different connotations that dance can assume within a research path were identified. These connotations have been highlighted to understand their support for the researcher/artist in order to improve one or more aspects of her/his work (from instruments used to data representation). The paragraph 2.1 explored the use of dance as lens and habitus. In this perspective the practice of a/r/tography can deeply contribute to evolve educational research thanks to the analysis of meaningful experiences of actors considered as artists/researchers/teachers. Conversely, the connotation of dance as method (Par. 2.2) highlighted the interdisciplinary nature of dance methods and instruments. Studies explored this use in different fields; for example, research works in education that used teachers' movement analysis are providing a different point of view on teachers' professional work and teaching styles (working papers). Finally, Par. 2.3 explored the use of dance as data representation. Representing data through dance and performance can contribute to a wider dissemination of research findings. In fact, scientific reports can be difficult to understand for teachers and stakeholders; dance can effectively represent data through a universal language.

As explained, within human sciences, research exploring knowledge construction has become more complex due to the nature of the object under investigation. Most of traditional approaches fail to explore some aspects of this object in an adequate capacity and an interdisciplinary perspective is becoming a preferred way to understand the complexity of social phenomena. Y.S. Lincoln and E.G. Guba (1985) affirm that «the arts-based domain privileges hybrid empirical, interpretive, and naturalistic theory-building practices» (Lang, 2013, p. 5).

In recent years, with the aid of instruments, methods, perceptions, and points of view from the field of Art, research in human sciences has proven that an interdisciplinary approach could help with the knowledge acquisition process. This line of research is not limited to investigate a single point of view: instead, it is able to investigate aspects often overlooked and hidden.

As suggested by "Art(ist) is present" (a well-know and brilliant performance by Marina Abramovic) both artists and the Art in general can significantly contribute in advancing the knowledge in educational context thanks to new and innovative research paths. At the present time, the challenge is to go beyond stereotypes that consider Art and the Arts-Based Research as a less scientific and unreliable approach to research. Furthermore, continuous efforts are needed to develop paradigms of references that, especially in educational and social research, could contribute to deep understanding social, educational, and cultural phenomena.

3. Beyond the scene: explore VET teachers' movement analysis

*«Lend your ears to music, open your eyes to painting,
and… stop thinking! Just ask yourself whether the work
has enabled you to 'walk about' into a hither to unknown
world. If the answer is yes, what more do you want?»*
Wassily Kandinsky

Abstract

The historical shift in the conception of teacher education has changed the concept of teachers' work that is intended now as a context within specific abilities and competencies are created, transmitted, and preserved (Green & Hopwood, 2015).

In recent years, there has been an increasing interest specifically on different ways of acquiring and transmitting knowledge in educational context. This raises a variety of questions about teacher's construction of professional knowledge. In last decades, artists and artistic practice have contributed not only to the investigations of new research methodologies and forms of research representations, but also to the «institutional acceptance of performance practices and processes as arenas in which knowledge might be opened» (Piccini, 2002, p. 6).

In order to better understand what it means to knowledge and learning during the professional practice, this paper argues to explore an alternative way of knowing focusing the attention on the body in the teaching circumstances. Four VET teachers represent the sample of this pilot study.

Keywords: VET teachers; Professional knowledge; Body literacy; Arts-Based Research

1. Introduction

In recent years, educational research, in focusing its attention on the different ways of acquiring and transmitting knowledge within educational contexts, has been focusing special attention on practical-operative experience of teachers. But, what it means to focus on practical experience of work? An arena has been provided by the perspective of sociomaterialism in which it can reflect on the nature and on the role of materiality and its relationship with social phenomena. Connected with this perspective there are different theories that focus on practice:

- practice philosophy;
- practice-based approach (mainly from organizational studies);
- other studies linked on concepts such as ways to knowing, epistemic cultures, epistemic work, etc.

These approaches share each other the idea that consider the materiality not only as a crucial dimension of social phenomenon, but also as a setting within all happens. Sørensen (2007; 2009) disapproves educational research as it has widely ignored aspects of materiality and bodily knowledge for many years. Similarly, T. Fenwick (2012) argues that very often, material aspects have been investigated and studied making them as immaterial things. This happen mainly giving more attention to social, political, and cultural dimensions. Schatzki considers materiality as part of the social context that it contributes to create and not as separate things. Then specifically in educational context «professional practices and learning [*could be*] understood as assemblages of materials, ideas, symbols, desires, bodies and natural forces» (Hopwood, 2016, p. 57).

How then the focus on practice could support a different ontology of teacher professional practice? The reference here is on ontology based on enactment or performance that considers the reality as produced and emerged through the relationship established in practice (Hopwood, 2016, p. 58). The practice is not produced but performed. Therefore, the attention not also has to take into account what is been produced in the practice, but also the process through which the

practice has developed. For example, the non-representational theory, considers seriously material things such as bodies, spaces, affect and practices (Thrift, 2006). It exists a long tradition in sociology and philosophy in which the concept of practice has a key role. There are many studies and research works on the concepts of "professional practice", "learning" and "education". As Hopwood highlights, Hager argues «understanding of practice (with its embodied emphasis) within educational research has been resourced by sociomaterial perspective» (Hopwood, 2016, p. 61).

Interesting, in this perspective, is the schatzian concept of *practical intelligibility*: «Insofar as practices are carried out through bodily doings and sayings, and what it makes sense to do is shaped by ends, values and norms, then there is an asymmetry, an a priori role for human activity and sense-making» (Hopwood, 2016, p. 68). Only human do actions and only human can give intentionality and affectivity to the action. Objects and the wider material world acquire meaning within the practice (practical meanings).

Furthermore, it is important to make a distinction between activity and action. As Schatzki (2001) argues activity can be considered as doings and sayings performed bodily; differently, practice recalls the space of multiplicity as it depends on the performance of activities. Activities are understood as the expression of forces and meanings that constitute practices. It can be learnt something about practices observing and understanding activities. This perspective highlights the indeterminacy of practice and practical knowledge that appears also from the use of metaphors[7] in educational context. Here the reference is on the metaphor of "emergence": «practices are not determined in advance, and the realities they produce therefore emerge» (Hopwood, 2016, p. 73). With respect to terms such as participation, acquisition, and transfer, the metaphor of emergence has become a key metaphor of learning. It considers complex

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[7] «Metaphors (along with analogies, models and exemplars [Petrie & Oshlag, 2002, p. 584]) not only represent how we think and build up our concepts and knowledge frames (Reddy, 1979; Fairclough, 1994; Mercer, 2000; Lakoff & Johnson, 2002; Ortony, 2002), but also that meta- phors are an important means of creating a bridge from old concepts and knowledge to new ones» (Taras, 2007, p. 56).

temporality, non-specific knowledge on a particular practice, and the process of interpretation and reinterpretation during practice. The concept of emergence suggests new questions on temporality and time. Moreover, the challenge is to go beyond the traditional view that considers learning as an *a priori* requirement for professional effective practice.

«If practices are emergent, and their emergence continually produces social realities, then learning must emerge with practice. While patterns and stabilities in social life and their prefiguring effects do not preclude us from anticipating how practices will unfold, we cannot fix what must be known in order to carry out work or a particular activity prior to its unfolding» (Hopwood, 2016, pp. 75-76).

Professional practices are emergent phenomena. That is to say that learning becomes an essential part of a good practice. As Jansen *et al.* (2012) highlight this push the discussion on different and alternative requirements for professionals who must be able, now, not only to apply and accomplish personal knowledge, but also to be active participants within the context in producing and sharing new knowledge. A. Bruni *et al.* (2007) affirm that the concept of practice provides a different way for theorizing knowledge and work letting us to capture the materiality and indeterminacy of specific forms of knowledge: «knowing is structured in practice through relation to the objects and artefacts that are folded into professionals' everyday work» (Hopwood, 2016, p. 79). The knowledge is always in the making. «Knowing is not a static embedded capability or stable disposition of actors, but rather an ongoing social accomplishment, constituted and reconstituted as actors engage the world in practice» (Orlikowski, 2002, p. 249). While T.R. Schatzki (1996b) talks about the importance of focusing on what it makes sense for someone to do, S. Gherardi (2009) refers to the *relational* logic among professionals, artefacts, context, and normative and aesthetic rules that support performance in the practice.

In summary, what it can be learnt from the perspective of these theories is the crucial role of the focus on activities and practices in determining professional work and learning. The questions now become: where we have to focus the

analysis in order to study professional practices? How all the aspects that constitute this kind of practice can be really understood and explored?

Studies in organizational and educational contexts have been paying attention on different elements. Based on this corpus of literature (Schatzki, 1993; 1996a; 2001; 2006; 2009; 2010; Gherardi, & Strati, 1988; Lefebvre, 1991; 2004; Eraut, 2004; Thrift, 2004; 2006; Bruni, Gherardi, & Parolin, 2007; Gherardi, Nicolini, & Strati, 2007; Green, 2009; Fenwick, 2010; 2012; Fenwick, & Landri, 2012; Barad, 2013) there are four essential dimensions that an analysis on professional practice have to consider: times; spaces; bodies; things.

This paper takes start from this assumption considering (specifically) the body as the metronome and the wheel on teachers' professional practice. The study of body and its relationships in the workplace becomes a turning point in the educational research (but not only). What it could mean to *be*, to *practice*, and to *learn* as a professionals become significant questions for researchers. «Practice and expertise are always embodied, in ways that are not always discernible to traditional research» (Green, & Hopwood, 2015, p. 5).

French and German research traditions on teachers' routines and action plans made a metaphorical reference to artistic concepts as performance, orchestration, etc. (Tacconi, 2015). Specifically, the so-called German concept of *Inszenierungsmuster* refers to all representational models of teaching practice that borrow artistic terminology to describe teachers' work (Tacconi, 2015). For example, F. Oser and F.J. Baeriswyl (2001) use the term "choreography" in their study on teacher's practice. In this work, in fact, they identify twelve "educational choreographies" that describe the relationship between teaching-learning activities and students' learning process (Oser, & Sarasin, 1995; Oser, & Prati, 1994). This terminology is used in order to represent learning processes taking into account elements such as teachers beliefs, learning tasks, feedback process, the Bruner's concept of functional rhythm, etc.

This is just one of the numerous studies that represent the "creative turn" of educational research. Despite the use of Art and artistic concepts as merely mediator of teaching and learning processes, the focus of interest, here, is the use of these evocative and different (from traditional ones) concepts as lens for the

study of practices both for teachers and researchers. The evidence of this "creative turn" can be clearly seen in the case of the use of the term choreography and on the analysis of choreographic styles (Bagley & Cancienne, 2002; Duerden & Fisher, 2007; Foster, 2011; Pastore & Pentassuglia, 2014) that have highlighted crucial features that this kind of topic can reveals. What is essential to highlight here is the importance to anchor the discussion on practice to the concept of choreography in its intimate nature. Despite the term choreography has been largely used, in recent years, in different fields, discourses rarely focused, in fact, on the key element that this term recall. In educational research the topic of body has been often overlooked reducing the term choreography just as metaphor of practice and/or logical connection among steps and things. This is a crucial lack in these studies with respect for instance to the sociomaterialism perspective of practice and the Schatzian identification of the body as one of the four essential key elements for the study of professional practice. For this reason these pages represent an attempt to perform an analysis of the teaching practice hanging together the role of body with the didactics aspects of teachers' work.

2. Aims and purposes: the Arts-Based Research point of view on teacher practice

This study takes place in the teachers' education field and it is aimed to study teaching practice as choreography, as an artistic practice performed by teachers in the classroom.

Research questions stated to develop the project are as follows:

- Is it possible to identify a choreographic style in teachers' activities?
- Can Art help to understand bodily practices and attitudes in teachers' work?
- Can we link the "bodily literacy" of teachers with their pedagogical competencies in order to perform the analysis of teaching choreographic style? How can it be possible?

Arts-Based Research (ABR), defined as «a systematic use of the artistic process, the actual making of artistic expressions in all of the different forms of arts as a primary way of understanding and examining experience by both researchers and the people that they involve in their studies» (McNiff, 2007, p. 29), has recently proven to make a significant contribution to the knowledge that researchers may have of reality. Despite it takes the training to the wider qualitative paradigm, borrowed several methods and tools, ABR has become something else that goes beyond mere methodological connotations. The challenge, as researchers and artists, is to understand how the ABR, in its complexity, can help open up new areas of knowledge that will enable researchers and practitioners to take new awareness through a wider vision of reality.

More specifically, from the wider ABR field methodology this research work used the approach of dance-based methods as they could be considered better then other for the study of body in professional practice. Following these considerations dance and choreography (Foster, 2011) have been used as concepts to interpret teachers' work. The aim here is to explore a new way to probe teachers' practice and to see what kind of information we can gather using this perspective.

For this first step of a wider project the researchers observed four Vocational Education and Training (VET) teachers during their daily work. The whole project will include also secondary school teachers. For this first step the aim was related to a particular interest; usually VET teachers are more involved in practice work than others. For this reason it can aspects to observe an emphasis in their use of body in the professional context. Then, this could be considered a pilot study with the aim to try and improve the research protocol.

Data analysis provides field observation with video recording. Each teacher was recorded just one time. The video was necessary for the use of the key instrument of the analysis: the Labanotation. Labanotation is a coding system for movement analysis that uses a functional-analytic approach to the study of body language (Figure 1). The encoding uses, in fact, the parameters of *weight*, *space*, *flow*, and *energy*.

Fig. 1 – Example of Labanotation's staff
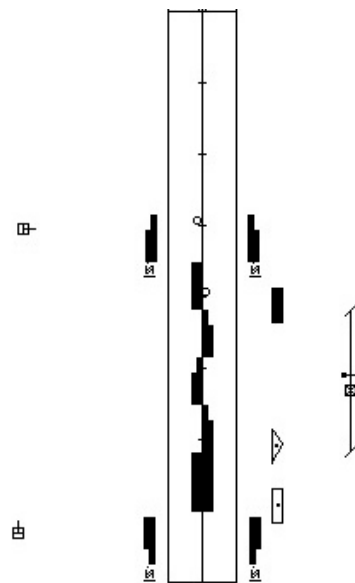
This system was created by R. Laban (Choensawat, Nakamura, & Hachimura, 2015; Gómez, 2015; Laban, 1950, 1975) who tried to develop a philosophy of dance with the aim to give it an essential role in the comprehension of human life. Particularly in the field of dance theorists of movement and choreographers, have developed different coding systems for body language. Although since 17th century ballet tradition, especially in France, has tried to "write" movement on paper and to note ballet movements, three are the most important coding systems for movement analysis that, during decades, have systematically create specific rules and codes in order to codify dances, which are the *Kinetography Laban*, the *Benesh Notation*, and *Eshkol–Wachman System*. Despite all of them are largely used by artists and researchers and are important coding system in the field of dance, for this project the researchers use the Labanotation for two important reasons. The first one is related to the kinds of transcription and symbols used. Benesh Notation movement transcription is based on the principles of ballet. For this reason it is not applicable to all movements of the body and, then, to a movement analysis of teachers' practices. Differently, Eshkol-Wachman system (and this is the second justification) adopts a particular "language" that derives

from behaviourists and ethologists and uses behavioural descriptions of body actions without "qualitative" traits. On the contrary, «in Labanotation, added flexibility of description is achieved with bodily based concepts such as the 'contraction', 'folding', and 'extension' of limbs. Various ways of describing relationships (between body parts, persons, or persons and objects) are also possible» (Farnell, 1984, p. 87). Labanotation, therefore, allows researchers, on the one hand, to analyse all kinds of movements observed; on the other hand, it allows to record the qualitative characteristics of teachers' movements.

3. Analysis and results: defining teacher's styles

The transcriptions of Labanotation done thanks to the videotapes have been analysed as follow.

For every eight count[8] (sequence of movement) it has been assigned one category of didactic actions and four categories of movement quality (one for each quality of body movement taken into consideration). Didactic categories considered for the analysis are based on an in-depth literature review. Specifically, had been considered a previous study on teaching choreographies with the use of Labanotation (Pastore, Pentassuglia, 2015) and Tacconi's analysis of secondary school teachers and their didactic actions (choreographies) (Tacconi, 2016). Hence, there have been created 6 macro categories.

- WARM-UP: this category includes actions such as the contextualization of contents, the creation of climate and atmosphere, and the management.
- INTRODUCTION: In this one the researchers included the introduction of the lesson with the preparation to the learning, the introduction of objectives and activities, the recall to previous learning and experiences, the assessment to previous learning, and the interaction with other subjects.
- PRESENTATION: here there is the presentation of the lesson and the explanation of topics and themes. So the core of traditional lesson.

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[8] Each staff is structured in two parts of eight beats, for a total of sixteen beats/counts for each page of coding. One beat/count lasts one second.

- ACTIVITY-WORK GROUP: this category includes the management of learning organizers and fulfilment of the activities.
- DISCUSSION: here there are all the activities related to the discussion with students and the reflections on the activities including the summary, class discussion, peer discussion, and the reflection on the activity.
- ASSESSMENT: this category recalls all the phases where the teacher assesses the student on a particular work in order to assign a grade. So it is related more specifically to summative assessment activities processes.

For the identification of elements through which analyse the quality of body movements, we referred to the R. Laban theory of movement (Laban, 2011). Thus, there have been identified four categories that represent four qualities of movement considered for the present study. Conversely, from the didactic categories, these ones are not mutually exclusive. So they are always present in each eight counts of movement sequence. Furthermore, each movement quality has different levels and ways to arise.

- SPACE: personal – peripersonal – wide/extrapersonal.
- TIME: quick with repetition – quick – slow with repetition – slow.
- FLUX: going/motion – interrupting (series of positions) – arresting.
- ACTION: continuous – jerky – stopped.

These information about didactic activities and movement qualities have been synthesised in order to identify a teaching style.

4. Results

Fig. 2 shows percentages of frequencies of the categories of movement in the whole lesson. S08-2 is a math male teacher. He used mainly a personal space moving quickly during the change of positions. His actions have mainly a continuous quality.

Fig. 2 – S08-2's frequencies of categories of movement's qualities
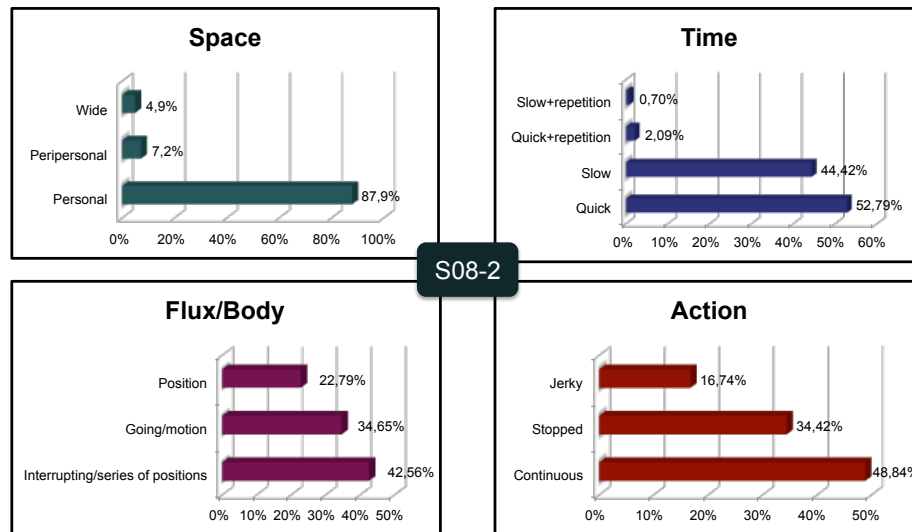
With what concern the synthesis of these data with the analysis of didactic actions, Fig. 3 shows the partial frequencies of the qualities of movement in each didactic category codified. This lesson is characterised by the *Warm-up* that is followed by the *Introduction* and then the *Presentation*, the *Activity/Work group*, and finally, the *Discussion*. No other didactic categories appeared. With the exception of the *Warm-up*, the didactic categories are well distributed in terms of time. S08-2's class was characterised by a personal use of space, slow movements, sequence of movement that arresting, and stopped actions. These aspects also characterised four of the five didactic activities that he used.

Fig. 3 – S08-2's partial frequencies of categories of movement's qualities[9]

WARM-UP 26.32%

| Personal | Slow | Position | Stopped |

INTRODUCTION – 20%

| Personal | Slow | Position | Stopped |

PRESENTATION – 29.41%

| Personal | Slow | Position | Stopped |

ACTIVITY/WORK GROUP – 27.08%

| Personal | Quick | Going/motion | Continuous |

DISCUSSION – 27.78%
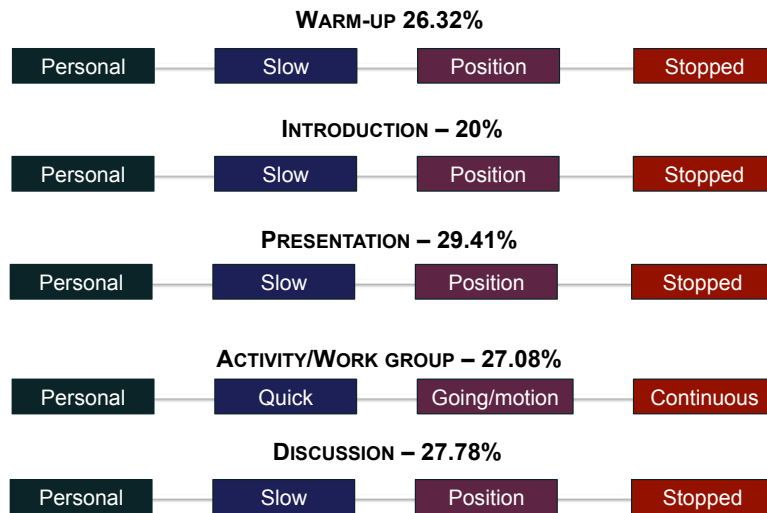
| Personal | Slow | Position | Stopped |

Fig. 4 represents the second lesson observed. This one is an Art male teacher and it is the same class of the previous math teacher. His whole lesson, with reference to the qualities of movement, is characterised by a personal use of space, movements alternatively slow and quick, an andante rhythm of movements associated with a series of positions, and actions mainly continuous.

Fig. 4 – S09-2's frequencies of categories of movement's qualities

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[9] The percentage indicated in Figure 3 refers to the frequency of sequences that are inclusive of one didactic category and four qualities of movement. Sequences shown are the most frequent sequence combination appeared during the lesson observed.

With the exception of *Activity*, this teacher used the *Warm-up*, the *Introduction*, the *Presentation*, and the *Discussion* as the previous one. The first part of the lesson was concentrated on the *Warm-up* with a movement style characterised by a personal space, quick movements, changes of different positions, and stopped actions. Furthermore the lesson continues with other didactic activities and ends with the *Discussion*. The second part of the lesson is characterised by a personal use of space, quick movements, and an andante time with continuous actions.

Fig. 5 – S09-2's partial frequencies of categories of movement's qualities

WARM-UP – 30.77%

| Personal | Quick | Position | Stopped |

INTRODUCTION – 18.18%

| Personal | Slow | Position | Stopped |

PRESENTATION – 24.09%

| Personal | Quick | Going/motion | Continuous |

DISCUSSION – 24.32%

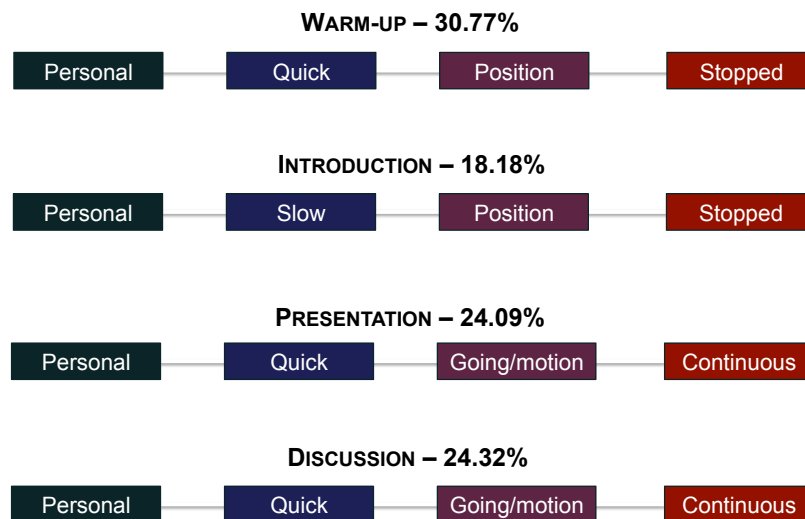| Personal | Quick | Going/motion | Continuous |

Fig. 6 shows the third lesson observed with a literature male teacher. It is a third class. As it can be seen, he used a personal space with slow and continuous actions, and movements both andante rhythm and interrupted for the entire lesson.

Fig. 6 – S10-3's frequencies of categories of movement's qualities

His lesson is characterised by the *Warm-up*, the *Presentation*, and ends with the *Discussion*. The *Warm-up* is characterised by a personal use of space, slow movements in the same position, and stopped activities. In the second part of the lesson, during the *Presentation* and the *Discussion*, S10-3 changes the *Flux* and *Action* categories moving andante and with continuous activities.

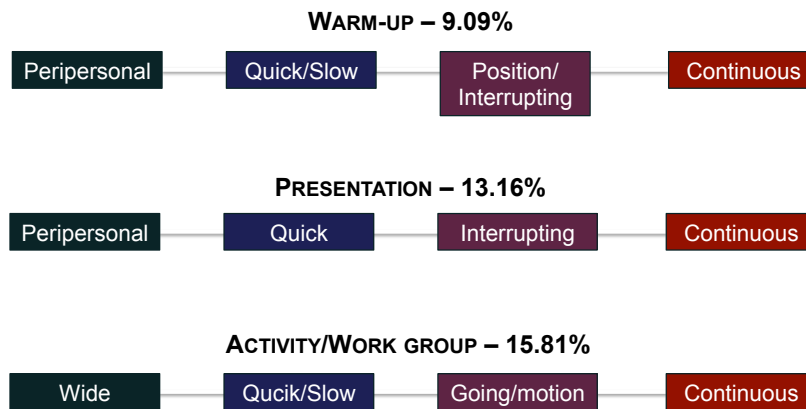**Fig. 7** – S10-3's partial frequencies of categories of movement's qualities
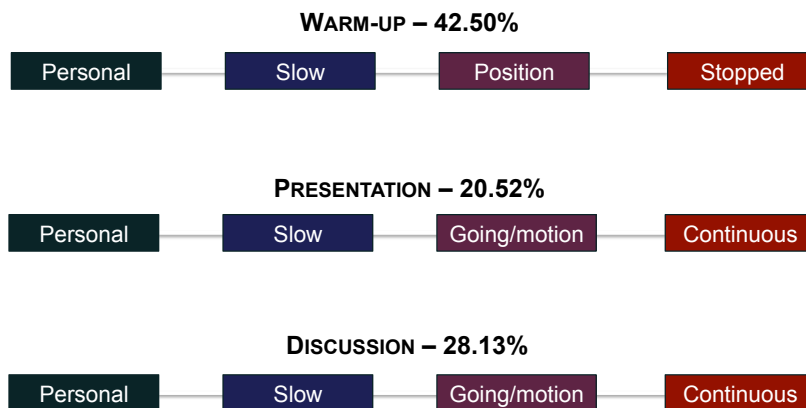
The last teacher observed is a Lab male teacher. Specifically, the setting here is a big laboratory for manufacturing of marble. There are two main big rooms with different machinery. Students are distributed in this space and they are involved in different works.

Although the different setting of the lesson, S11-2's lesson is characterised by a personal space. This result is justified by the fact that this teacher moves quickly in the space (use of wide space) to approach all the students, so the time that he use to approach students in different work posts is lesser then the time in which he talks with his student in the same position. With what concern the others qualities of movement, he used both slow and quick movements, interrupting and andante flux of movement, and (for almost the entire lesson) continuous activities.

Fig. 8 – S11-2's frequencies of categories of movement's qualities
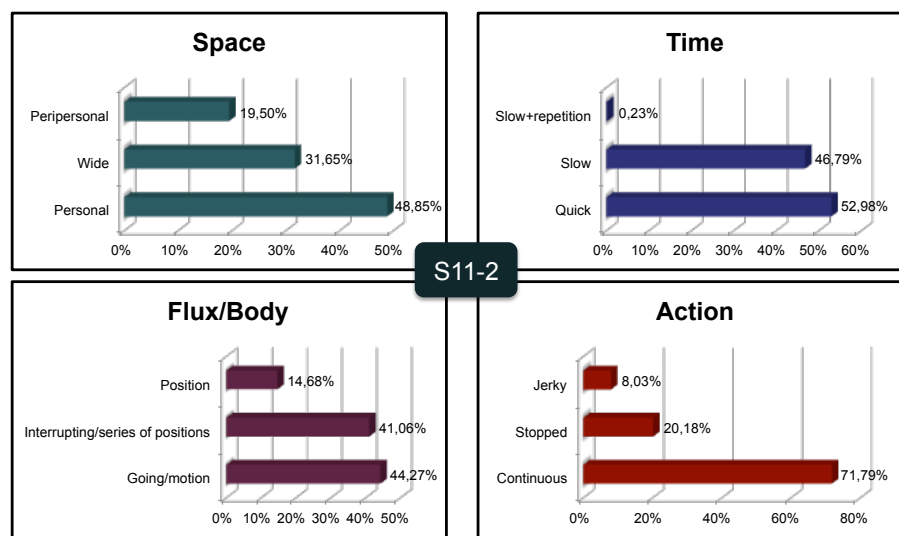
The most frequent sequence of quality movements associated with didactic actions codified are shown in Fig. 9. In this case, S11-2 used a brief *Warm-up*, then the *Presentation*, and the *Activity/Work group* for the rest of the lesson. With contrary to the previous teacher, he used mainly peripersonal or wide space with quick movements and continuous actions. With what concern the *Flux* of his movement, he changes frequently the quality of his flux going through an interrupting quality to an andante one.

Fig. 9 – S11-2's partial frequencies of categories of movement's qualities

WARM-UP – 9.09%

| Peripersonal | — | Quick/Slow | — | Position/ Interrupting | — | Continuous |

PRESENTATION – 13.16%

| Peripersonal | — | Quick | — | Interrupting | — | Continuous |

ACTIVITY/WORK GROUP – 15.81%

| Wide | — | Qucik/Slow | — | Going/motion | — | Continuous |

Results have shown some styles. Differences among disciplines have been found. Further studies with the same research approach and method will be implemented in order to understand if similar differences among choreographic styles identified with this group of teachers could be seen in secondary school teachers.

5. Discussion

These analyses show how these teachers have a specific way to manage the lesson. Although they have some common characteristics something difference in their quality of movement connected with the didactic action appears. Obviously they represent a specific context and specific disciplines. These four teachers represent a case study in the whole sample of secondary school teachers included in this research project, and they are an interesting focal point as they represent the first step of analysis that will let the researchers to compare this context with secondary school one.

Furthermore analysis in the research path will include not only the coding of all secondary teachers, but also a comparison of their choreographic style and the identification of common styles. Implications on the comparison between this kind of analysis of practices and teachers' beliefs on their use of body in the practice will be also considered.

The aim and the estimated objective are to find a list of choreographic style that can represent not only the didactic action of teachers, but also something more. Styles able to represent the teacher as a performer.

6. Conclusions and limits

The importance of the study of body and its role in a workplace becomes relevant if we consider the meanings that the body might convey in today's society. The focus on the body awareness could have important implications for the teacher education paths. This kind of studies could change the way in which teacher education is thought and practiced.

This study shown as an attention on teacher practice from an "artistic" point of view can reveals aspects often avoided in traditional studies. Hanging together didactic aspects of teacher's practice with the role of body in a lesson could be the first step in order to achieve new developments in teacher education field. Following the Schatzi's assumptions on the role of body as one of the key elements for a better understanding of professional practices, these results highlight that different and innovative research paths for a new understanding of teacher practice are possible.

Further studies are needed in order to define and improve a "body literacy" of teachers called to be professionals in different practice stages.

4. "Shadow Movements": Teachers' Profession and Performance in the Arts-Based Research Perspective

«There are times when a simple dignity of movement
can fulfil the function of a volume of words»
Doris Humphrey

Abstract

Educational research, in recent years, focusing its attention on different ways of acquiring and transmitting knowledge within educational contexts, has focused a special attention on practical experience of teachers (performance and efficacy). This interest became valuable material for the understanding of the whole teaching-learning processes.

It is especially the Practice Based Studies that have exerted a new influence in the reading and understanding teachers' work. The attention to the concept of practice allows a different interpretation of the work that is now understood as a space, as a context (in the broadest meaning of the term) in which specific skills are created, transmitted, and stored (Shilling, 2003; Schatzi, Knorr-Cetina, & von Savigny, 2001).

The study of body, movements, and relationships in the workplace then becomes a turning point in the educational research. Questions such as what it could mean to *be*, to *practice*, and to *learn* as a professional become significant. The importance of the body can be recognised in the attempt of practice theorists to describe embodied human activity as know how, dispositions, skills, and tacit knowledge (Landri, 2012). «Practice and expertise are always embodied, in ways that are not always discernible to traditional research» (Green, & Hopwood, 2015, p. 5).

The analysis both of the body and of the choreography staged by teachers in their classroom will be realised using the art, and specifically, the dance, as a "lens" to observe the reality. The dance according to the approach of the Arts-Based Research will be also considered as a "dress" to acquire a posture in order to manage and organise all the research phases.

The challenge is to understand how the ABR, in its complexity, can help open up new areas of knowledge that will enable researchers and practitioners to take new awareness through a wider vision of reality.

Following these considerations, in this study, dance and choreography (Foster, 2011) will be used as concepts to interpret teachers' work.

For data collection both quantitative and qualitative instruments have been used in order to perform a mixed-method path for analysis.

Field observations (with video recording) to a sample of 30 secondary school teachers during their daily work were performed. Besides the analysis of movement, an analysis of teaching activities has also been performed in order to contextualise teachers' quality of movements. The match of the two analyses has provided the teachers' choreographic style.

Key words: Arts-Based Research; Dance-Based Methods; Teaching; Movement analysis; Choreographic style

1. Introduction

The concept of practice permeates current discussion on the nature of work and on its intimate aspects. More than other, organisational studies (Schatzki, 1993; 1996a; 2001; 2006; 2009; 2010; Gherardi, & Strati, 1988; Lefebvre, 1991; 2004; Eraut, 2004; Thrift, 2004; 2006; Bruni, Gherardi, & Parolin, 2007; Gherardi, Nicolini, & Strati, 2007; Green, 2009; Fenwick, 2010; 2012; Fenwick, & Landri, 2012; Barad, 2013) provide a useful account on how practice could be investigated. Different approaches provided by the sociomaterialism perspective such as practice philosophy, practice-based approach (mainly from organisational studies), and other studies linked to concepts such as ways to knowing, epistemic cultures, epistemic work, etc., share each other the idea that consider the materiality as a setting within all happen. What it can be assumed from the perspective of these theories is the role of activities and practices as key elements in determining professional work and learning. Practice-based studies highlighted the role of body as a metaphor, background, and resource for practice (Schatzki, 1996) that also influence the understanding of work activities.

In recent years, especially in the educational research, the body and its role in the workplace becomes an important aspect for the study of teacher's professional practices. What professional *are*, *practice*, and *learn* become significant questions for researchers. «Practice and expertise are always embodied, in ways that are not always discernible to traditional research» (Green, & Hopwood, 2015, p. 5). This paper aims to explore the role of body as a metronome and a wheel of teachers' professional practice. How do teachers move meaningfully *in* and *through* their practice? (Shotter, 2011). «How does someone who has not previously 'taught' in a formal and professional sense become 'some body' as a teacher? How do they acquire a teaching habitus - a body in which the attitudes, gestures, vocalizations and predispositions it has are recognizable to other bodies as 'teacherly'?» (Reid, & Mitchell, 2015, p. 89).

Although feminists' studies such as I.M. Young (1980) and M. Sheets-Johnstone (1999) provided crucial discussion on the need to understand the role of body in the study of society and in pedagogy, teacher education field has given

little attention on this topic (Reid, & Mitchell, 2015). «Research into lived experience is 'a process of deepening and extending the quality of our coming to know; a process of changing the way we understand the phenomena of our experience'» (Barbour, 2011, p. 69). P. Bourdieu (1977) talks about the "feel for the game" in order to highlight the importance of the understanding of practice in order to develop an affective and corporeal knowledge *in* and *through* the action; the "art" of the improvisation that can define the excellence performance. As a key figure in the contemporary debate, T.R. Schatzki (2001; 2012) explains the concept of "body-ness" through the distinction among: *being a body* (the ability to express itself doing and acting); *having a body* (highlights the Cartesian dualism between mind and body); *instrumental body* (refers to the bodily action performance). T.R. Schatzki and Natter (1996) also focused on what they call "corporeality" as they assume that the world is organised by a multidimensional body. Specifically, they consider the body «not simply physicality but activity, experience and surface presentation as well» (Schatzki, & Natter, 1996, p. 5). Hager *et al.* (2012b) explore five principles that can explain how practice could be understood:

1. Practice is more than the mere application of theoretical knowledge;
2. Practice, as a sociomaterial phenomenon, involves human and nonhuman actors;
3. Practice is embodied and relational;
4. Practice is not stable, homogeneous or ahistorical;
5. Practice is an emergent element that cannot be assumed *a priori*.

In this sense practice becomes something not only embodied, but also dialogical, purposive that emerge fro the sociomaterial world.

> «Professional practice in this light consists of *speech* (what people say) plus the activity of the *body*, or bodies, in interaction (what people do, more often than not together) – a play of voices and bodies. In this view, practice is inherently *dialogical*, an orchestrated interplay, and indeed a matter of co-production» (Green, 2009, p. 49).

Flyvbjerg (2001) argues that experts work and practice in a well-tried understanding, in an intuitive way that comes from their experience of one's own body. Both P. Bourdieu and Merleau-Ponty consider thinking as a kind of corporeal awareness – prior to taking the form of representations» (Marcoulatos, 2001: 6). The "feel for the game", then, become a representation of the connection between the habit and the bodily capacity of humans intended as «what the body could do under different circumstances» (Noble, & Watkins, 2003, p. 527). This form of consciousness could open up new ways to reflect and to achieve a kind of "mindfulness" in professional practice (Green, & Hopwood, 2015).

What it can be learnt from this literature review is that the role of body in professional practice is something more than just an element of that practice. As Green and Hopwood (2015) summarised in their work the relation of body and professional practices that could be understood by identifying it with a three-fold fashion: the body as *metaphor* of practice; the body as the *background* of practice; and the body as a *resource* for practice (pp. 28-29).

2. Think in terms of movement

Although Green and Hopwood split the use of body as metaphor from its interpretation as a background, and as a resource, this paper will explore the use of metaphors as something wider that can include different interpretation of reality.

M. Reddy (1993) highlights the conceptual nature of metaphor in contemporary theory as part of the ordinary everyday thought and language. Research is challenging the traditional conceptualisation of metaphor as a figurative language divided from the literal one. In fact, traditional assumptions of the word "literal" have proved to be false.

- All everyday conventional language is literal, and none is metaphorical.
- All subject matter can be comprehended literally, without metaphor.
- Only literal language can be contingently true or false.
- All definitions given in the lexicon of language are literal, not metaphorical.

- The concepts used in the grammar of a language are all literal; none are metaphorical (Lakoff, 1993, p. 204).

M. Taras (2007) recognises an important role of metaphors in our thinking and beliefs. Specifically, she explains three issues: (1) the function of metaphors in «creating a bridge from old concepts and knowledge to new one» (*Ivi*, p. 56); (2) metaphors create limits that can change our interpretation of any given situation; (3) and very often the use of dichotomies provides fixed opinions and «this tends to exclude the possibility of a middle ground» (*Ivi*, p. 56).

Currently, the use of metaphors in Education is becoming very common. Specifically, with what concern the focus of this article, artistic metaphors had helped in the construction of knowledge in order to approach different point of views of phenomena. V. Janesick (2004) used the metaphors of dance and choreography to explore and describe qualitative research process. F. Oser and F.J. Baeriswyl (2001) described the relationship between teaching-learning activities and students' learning process as an "educational choreography" that also represents learning processes taking into account elements such as teachers beliefs, learning tasks, feedback process, the Bruner's concept of functional rhythm, etc. The term choreography could be actually defined as the structuration of actions in many settings that have in common an intentional and regulated movement (Foster, 2011). This definition of choreography allows to observe work and, in particular, teaching from a different points of view. Hence, the question becomes: which are the elements that the metaphor of choreography allows to explore?

The first key elements that this definition of choreography highlights are the body and bodily dimensions of work. In the chapter "Becoming a Teacher: the role of body at work" with S. Pastore (2016), M. Pentassuglia explored these elements as a result of a literature review both in Educational and Organisational studies (see Ch. 1). What emerged is a set of methods and instruments to approach the study of work and teaching practices in an innovative approach. The approach developed allows embracing the metaphor of "choreography" as its key element (i.e. the body) is no longer avoided.

3. The methodological approach

S. McNiff defines the Art-based research «as the systematic use of the artistic process, the actual making of artistic expressions in all the different forms of the arts, as a primary way of understanding and examining experience by both researchers and the people that they involve in their studies» (McNiff, 2008, p. 29). Specifically he considers the Art-based research as an umbrella concept that includes three uses of arts in the research process (McNiff, 2013). His premise assumes that the use of artistic expressions could be considered as the primary mode of enquiry. In this sense Art-based research include the related terms of arts-informed research, arts-based research and artistic enquiry. Over the past decade researchers have worked mainly around the use of arts in the research process (first and second terms identified my McNiff) as data source or method (Knowles, & Cole, 2008; Barone, & Eisner, 2012; Leavy, 2009; Liamputtong, & Rumbold, 2008). Recently, studies are paying attention on how artistic ways of knowing can improve scientific analysis that often fail to fit all human issues. In this case «the empirical use of artistic experimentation by the principal researcher/s [*is the*] primary mode for both the process of enquiry and the communication of outcomes» (McNiff, 2013, p. 4).

M. Savin-Baden and K. Wimpenny use the term Arts-related research «defined here as research that uses the arts, in the broadest sense, to explore, understand and represent human action and experience» (Savin-Baden, & Wimpenny, 2014, p. 1). Chiefly, the use of this new approach has grown from the need of researchers to develop and understand processes and experiences that are not fully understood through traditional research approaches. Greenwood (2012) identifies two dominant connotations of Art-Based Research approaches: the first is the use of arts as tools through which it can be possible to explore and study different issues both social and educational (such as collecting data, analysing process, and representing findings); the second considers an investigation into the arts themselves describing the complex meanings of art works and forms.

In Education E. Eisner was one of the first authors who explored the use of arts this field. He considers the Arts-Based Research as «an effort to extend

beyond the limiting constraints of discursive communication in order to express meanings that otherwise would be ineffable» (Barone, & Eisner, 2012, p. 1). The aim is to use the potential of arts both in the communication and research process itself in order to explore educational issue from different points of view.

These discourses were further developed with the perspective of a/r/tography research (Gouzouasis, 2013; Springgay, & Irwin, 2005) that focuses on the meaningful experience of artists/researchers/teachers.

«A/r/tographal work is a specific category of art-based research practices within education research. A/r/t is a metaphor for artist-researcher-teacher. In a/r/tography these three roles are integrated creating a third space (Pinar, 2004: p. 9). These practioners occupy 'in-between' space (Pinar, 2004: p. 9). A/r/tography merges 'knowing, doing, and making' (Pinar, 2004: p. 9)» (Leavy, 2009, p. 3).

Taking start from this wider literature on the development of ABR and its several forms, this article aims to be placed in this field specifically following the definition that P. Leavy wrote about ABR: «ABR practices are a set of methodological tools used by researchers across the disciplines during all phases of social research, including data generation, analysis, interpretation, and representations» (Leavy, 2015, p. IX). This definition is the one adopted as epistemological basis of this research process. Although the importance of artistic process in the development of new meanings linked to particular phenomena and ways of knowing those phenomena, arts can be considered as research fields that can provide tools, techniques, and methods useful for the investigation of social, cultural, and educational issues. Moreover, the identity and competences of the research/artist play an important role in the creation of new understandings and research paths. In fact, here the focus is on the use of dance tools and concepts as principal way to investigate teaching practices.

On the one hand this choice has been made due to the literature gap identified in the review on teacher education and teaching styles (see also Ch. 1). Over the years researchers have focused the attentions on pedagogical issues of teaching practice. Although there is a long tradition on the importance of practices' analysis and context for the investigation of teachers' work (Altet, 2010; Tacconi,

2011; 2015; Buccoliero, & Maggi, 2009), rarely discourses focused on movements, the importance of body and its meanings as the main mediators of teaching practice. Even when teaching has been seen as performance (Oser, & Baeriswyl, 2001), the references on the role of body have been often avoided; on the other hand the focus on movements and body is justified by the importance highlighted by the literature about the role of body movements in the perceptions of different situations as well as the transdiciplinary competences of the authors of the present article as researcher/dancer and researcher/educator.

For these reasons this research project used the Labanotation (a movement coding system) and the R. Laban's theory of movement as principal tools for the analysis of teachers' movement. Laban (Laban, 2011) affirms that every movement has a level of intentionality (conscious or unconscious); for this reason every movement can shows something that goes beyond verbal communication and self-consciousness.

Since 17th century ballet tradition, especially in France, has tried to "write" movement on paper. There had been developed many languages aimed to attempt this issue, but actually only three of them are the most important coding systems of movement analysis that, during decades, have systematically create specific rules and codes in order to codify dances. These are the *Kinetography Laban*, the *Benesh Notation*, and *Eshkol-Wachman System*. This project chooses to use the Labanotation for a twofold reason: Firstly, Benesh Notation movement transcription is not applicable to all movements of the body as it is based on principles of ballet. Then, it cannot be used for the analysis of teachers' movement in an everyday educational context. Secondly, Eshkol-Wachman system adopts behavioural descriptions of body actions without "qualitative" traits as it is developed by behaviourists and ethologists. On the contrary, «in Labanotation, added flexibility of description is achieved with bodily based concepts such as the 'contraction', 'folding', and 'extension' of limbs. Various ways of describing relationships (between body parts, persons, or persons and objects) are also possible» (Farnell, 1984, p. 87). As result, Labanotation allows researchers to analyse all kind of movement observed as well as to allow recording the qualitative characteristics of teachers' movements.

4. Instruments

The research protocol followed two steps. The first one concerned the video-recording of 30 secondary school teachers. Teachers were from different subjects (Literature, Math, Science, Foreign language, Philosophy, Gym, etc.). Each teacher was video recorded for the entire lesson. Camera's focus was exclusively on teacher.

The second step was related to video coding. Labanotation coding system was the main instrument that let the researcher to translate teacher's movement into symbols on paper. The coding transcribed movements second by second. The coding allowed to further analyse the lesson focusing on teacher's movement and didactic activities. Two sets of criteria were created: didactic criteria and movements criteria.

Didactic criteria come from a literature review on teaching and teacher's professional aspects. Specifically, two studies were used in order to name and define criteria: the first one was the Pastore's and Pentassuglia's (2015) paper on a previous research project that used the same methodology approach in a primary school field; the second study was from Tacconi's (2015) analysis of secondary school teachers and their didactic actions (choreographies). So, we created 6 macro criteria.

- WARM-UP: this category includes actions such as the contextualization of contents, the creation of climate and atmosphere, and the management.
- INTRODUCTION: In this one the researchers included the introduction of the lesson with the preparation to the learning, the introduction of objectives and activities, the recall to previous learning and experiences, the assessment to previous learning, and the interaction with other subjects.
- PRESENTATION: here there is the presentation of the lesson and the explanation of topics and themes. So the core of traditional lesson.
- ACTIVITY-WORK GROUP: this category includes the management of learning organizers and fulfilment of the activities.

- DISCUSSION: here there are all the activities related to the discussion with students and the reflections on the activities including the summary, class discussion, peer discussion, and the reflection on the activity.
- ASSESSMENT: this category recalls all the phases where the teacher assesses the student on a particular work in order to assign a grade. So it is related more specifically to summative assessment activities processes.

These criteria do not represent specific didactic activities, instruments, or techniques. Rather they represent different mutual exclusive phases of the lesson.

With what concern the movement's criteria, they are basically inspired from the Laban's theory of movement. His theory (Laban, & Ullman, 2011) is based on four main characteristics of body movement that must be taking into account:

- The *space*, related to the use of body in the stage;
- The *time*, linked to the rhythm of body movement;
- The *weight*, the use of energy in each movement as that could be connected to the intentionality of movement;
- And the *flow*, which represents the dynamic of movements.

For Laban, all movements express intentionality. Although it could be explicit or implicit, there is always a grade of intentionality in each movement.

In order to adapt these characteristics to the aims of the present study, four new criteria are developed in order to adapt the theory on teacher's movement analysis. Criteria are: SPACE; TIME; FLOW; ACTION. Differently from didactic criteria, these have different standard levels (Tab. 1).

Table 1 – Description of movement's categories

	Level 1	Level 2	Level 3	Level 4
Space	*personal*	*peripersonal*	*Wide/extrapersonal*	-
Time	*slow*	*Slow + repetition*	*quick*	*Quick + repetition*
Flow	*going-motion*	*interrupting-series of positions*	*arresting-position*	-
Action	*continuous*	*jerky*	*stopped*	-

To each sequence of eight seconds of movement coding it was assigned one didactic criterion and a standard level for each movement's criterion (Fig. 1).

Figure 1 – Example of categorisation phase

S08-2				
CATEGORIE MOVIMENTO				CATEGORIE DIDATTICHE
Space	**Time**	**Flux/body**	**Action**	
Personal	Quick	Going/motion	Continuous	Warm-up
Personal	Quick+repetition	Going/motion	Jerky	Warm-up
Personal	Slow	Position	Stopped	Warm-up
Personal	Quick	Interrupting/series of positions	Stopped	Warm-up
Personal	Quick	Position	Stopped	Discussione
Personal	Quick	Interrupting/series of positions	Stopped	Discussione
Personal	Quick	Position	Stopped	Discussione
Personal	Quick	Position	Stopped	Discussione
Personal	Slow	Position	Stopped	Discussione
Personal	Quick	Position	Stopped	Discussione

The matrix obtained showed teacher's style represented both by didactic and movement criteria analysis. In order to make these information more legible, further analysis were done.

The four standards codified for each movement's criterion were aggregated following three steps. Each of them created one index. Figure 2 shows the process of typology indexes' creation.

Figure 2 – Construction of the three indexes

		Time					Index 1
		Slow	Slow+repetition	Quick	Quick+repetition		1. Essential
Space	Personal	1	1	2	2		2. Present
	Peripersonal	1	1	3	3		3. Lively
	Wide	2	2	3	3		

		Flux/Body				Index 2
		Arresting	Series of positions	Going		1. Release technique
Index_1	Essential	1	1	2		2. Tanztheater
	Present	1	2	3		3. Gaga technique
	Lively	2	3	3		

		Action				Index 3
		Stopped	Continuous	Jerky		1. Doris Humphrey
Index_2	Release technique	1	1	2		2. Pina Bausch
	Tanztheater	1	2	3		3. Ohad Naharin
	Gaga technique	2	3	3		

Firstly, "Space"'s and "Time"'s standards were crossed. Following the criterion of complexity, it was assigned a level (1, 2, or 3) to each cell. These three levels of complexity were then named in order to represent three levels of intersection between space and time. This process was followed to continue the creation of indexes. Hence, Index 1, obtained from the first intersection was crossed with the third movement criterion's standard "Flow". At the end Index 2 was crossed with the fourth movement's criterion "Action".

Index 1 simply explains space-time relation with adjectives. Index 2 includes also the "Flow" criterion. Its standards are called with the name of three contemporary dance styles; these styles roughly represent the three characteristics crossed in this index[1] (so, "Space", "Time", and "Flow"). The last one, Index 3,

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[1] *Release technique* is a movement practice that focuses on breathing, skeletal alignment, joint articulation, muscle relaxation, and the use of gravity and momentum to facilitate efficient movement. Release techniques can be found in modern and postmodern dance, in therapeutic movement techniques such as Feldenkrais and Alexander Technique, and in yoga and martial arts. *Tanztheater* is more than a mere 'blend' of dance and dramatic elements. The mash-up of dance and theatrical methods creates something unique and powerful that go beyond traditional schemes.

includes also the last movement's criterion, the "Action". Standards here were called respecting the creators of contemporary dance techniques of Index 2. Although the names were chosen symbolically, they represent in a quite good way the intersections of movements' criteria.

For the interpretation of teacher's style, the researchers tried to further crossed indexes found with the didactics' criteria. In order to do not loose valuable information, the researchers also chosen to not only consider Index 3 (that includes all movement's criteria), but also Indexes 1 and 2. At the end of the process each teacher observed was represented by a graphs that is able to represent her/his own teaching style both in terms of didactic and movement aspects. Figure 3 represent the TEacher hexagon of Choreographic STyle (TECST).

Figure 3 – TEacher hexagon of Choreographic STyle
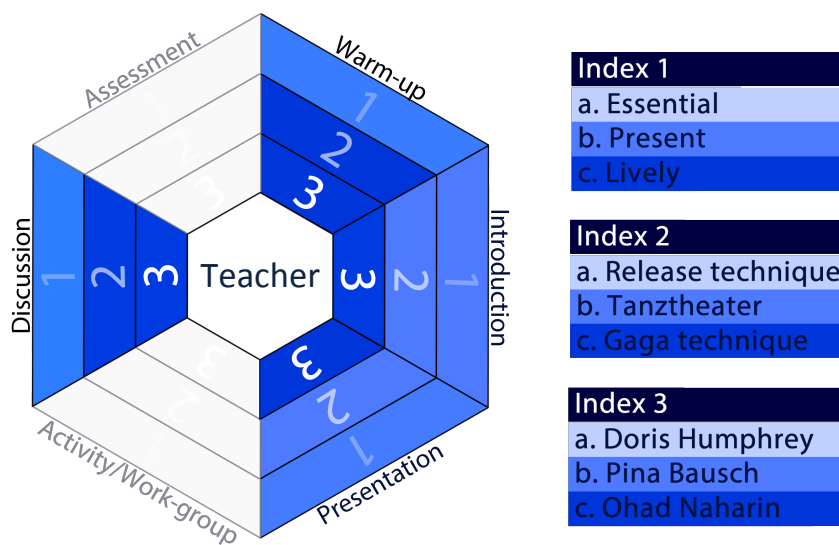
The instrument created answer to the questions:

Gaga is a movement language and pedagogy developed by Ohad Naharin, that characterizes Israeli contemporary dance. A practice that resists codification and emphasizes the practitioner's somatic experience. Naharin explains that such a practice is meant to provide a framework or a "safety net" for the dancers to use to "move beyond familiar limits". The descriptions that are used to guide the dancers through the improvisation are intended to help the dancer initiate and express movement in unique ways from parts of the body that tend to be ignored in other dance techniques.

- Which didactic category was used in this particular lesson? – information that allow to identify the nature of the lesson observed;
- Who is the teacher represented? – the graph provide information of discipline (provided by the colour), student grade and context (provided by the code);
- How this teacher moves during the lesson? – the intensity of colour represents the standards of the three indexes.

5. Results

The whole sample of the present project includes 30 secondary school teachers. 13 of them are male teachers and 17 female teachers. The majority has more than 20 years of teaching experience and they are between 40 and 63 years old (i.e. experienced teachers). The researcher also asked them if they have experience in the whole Art field. 14 of them did not have any type of experience in this field; the other 16 teachers have experience in theatre, dance, visual and performing arts in general. The purpose of this question was to observe if it exist a correlation between those experiences and their choreographic teaching style. In order to perform this correlation, data of the three indexes identified (Fig. 2) have been merged in one main factor; in order to avoid the lost of information this main factor was calculated through a weighted average in which the first index was the weightiest. Then, ANOVA analysis between this main factor and the other variables (gender; age; subject matter; experience in arts) was performed.

Table 2 – ANOVA analysis of the main factor with gender variable

ANOVA univariate

Warmup

	Sum of squares	df	Average of squares	F	Sig.
Between groups	8026,682	1	8026,682	2,500	,130
Within groups	61011,127	19	3211,112		
Total	69037,810	20			

Introduction

Between groups	4808,731	1	4808,731	1,675	,228
Within groups	25836,179	9	2870,687		
Total	30644,909	10			

Presentation

Between groups	1856,349	1	1856,349	,327	,573
Within groups	119143,303	21	5673,491		
Total	120999,652	22			

Activity

Between groups	9409,867	1	9409,867	1,219	,295
Within groups	77180,800	10	7718,080		
Total	86590,667	11			

Discussion

Between groups	16878,050	1	16878,050	10,012	,016
Within groups	11799,950	7	1685,707		
Total	28678,000	8			

Assessment

Between groups	9861,333	1	9861,333	3,515	,134
Within groups	11223,500	4	2805,875		
Total	21084,833	5			

ANOVA analysis was performed separating data into groups: each group represent one of the didactic categories explained above. As it can be seen in Tab. 2, only "Discussion" has a significant correlation; this mean that scores of the main factor (that represent the three indexes related to the quality of movements showed) change based on the gender of teachers observed.

Table 3 - ANOVA analysis of the main factor with subject matter variable

ANOVA univariate

Warmup

	Sum of squares	df	Average of squares	F	Sig.
Between groups	6454,276	3	2151,425	,584	,633
Within groups	62583,533	17	3681,384		
Total	69037,810	20			

Introduction

Between groups	3917,481	2	1958,740	,586	,579
Within groups	26727,429	8	3340,929		
Total	30644,909	10			

Presentation

Between groups	21864,535	3	7288,178	1,397	,274
Within groups	99135,118	19	5217,638		
Total	120999,652	22			

Activity

Between groups	18433,238	3	6144,413	,7216	,567
Within groups	68157,429	8	8519,679		
Total	86590,667	11			

Discussion

Between groups	3632,667	2	1816,333	,435	,666
Within groups	25045,333	6	4174,222		
Total	28678,000	8			

Assessment

Between groups	21004,167	2	10502,083	390,573	,000
Within groups	80,667	3	26,889		
Total	21084,833	5			

Tab. 3 shows the ANOVA analysis between the main factor and the subject matter. In this case the most significant correlation has performed by the "Assessment" didactic category. Thus, teachers who use "Assessment" category during their lesson diverge in their use of movement and body based on their subject matter.

Table 4 - ANOVA analysis of the main factor with experience variable

ANOVA univariate

Warmup

	Sum of squares	df	Average of squares	F	Sig.
Between groups	616,050	1	616,050	,178	,678
Within groups	62180,900	18	3454,494		
Total	62796,950	19			

Introduction

	Sum of squares	df	Average of squares	F	Sig.
Between groups	5048,731	1	5048,731	1,775	,215
Within groups	25596,179	9	2844,020		
Total	30644,909	10			

Presentation

	Sum of squares	df	Average of squares	F	Sig.
Between groups	28,024	1	28,024	,005	,946
Within groups	120878,567	20	6043,928		
Total	120906,591	21			

Activity

	Sum of squares	df	Average of squares	F	Sig.
Between groups	4276,800	1	4276,800	,550	,477
Within groups	69979,200	9	7775,467		
Total	74256,000	10			

Discussion

	Sum of squares	df	Average of squares	F	Sig.
Between groups	1984,500	1	1984,500	,520	,494
Within groups	26693,500	7	3813,357		
Total	28678,000	8			

Assessment

	Sum of squares	df	Average of squares	F	Sig.
Between groups					
Within groups					
Total					

As last correlation performed, Tab. 4 shows the ANOVA analysis of the main factor and the variable related to teachers experience in arts. In this case, "Assessment" category has not represented because all teachers who use that have no experience in arts and thus ANOVA cannot be calculated. With what concern the other categories, no correlations appear.

Figure 4 – Comparison of languages axis teachers
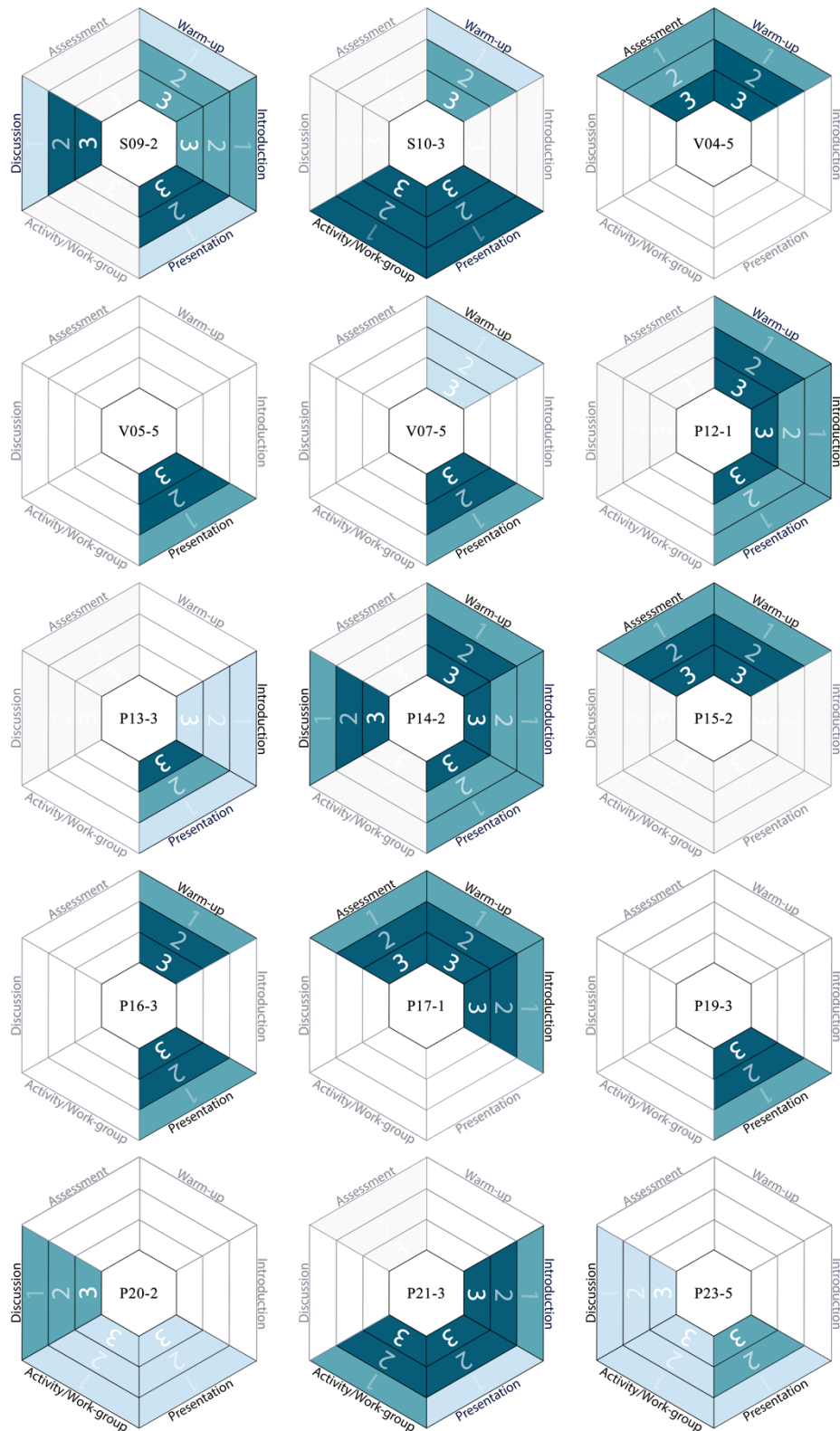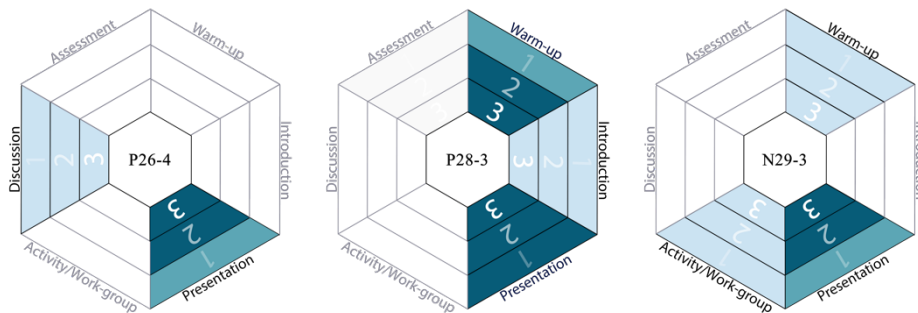
Fig. 4 shows the comparison of choreographic teaching styles among all the teachers within the languages axis[2]. There are no significant differences between VET (Vocational Educational and Training) context (S code) and high school one (V and P code). Considering, for example, Literature teachers (V04-5; S10-3; P12-1; P13-3; P14-2; P15-2) and foreign language teachers (V05-5; P16-3; P17-1; P19-3; P20-2; P23-5; P26-4; N29-3) separately, it can be seen several level of complexity in their movements within didactic categories used. This confirms ANOVA analysis performed and explained above; subject matter does not affect the way through which teachers move during the lesson. Other variable must be considered.

Figure 5 – Comparison of mathematic axis teachers

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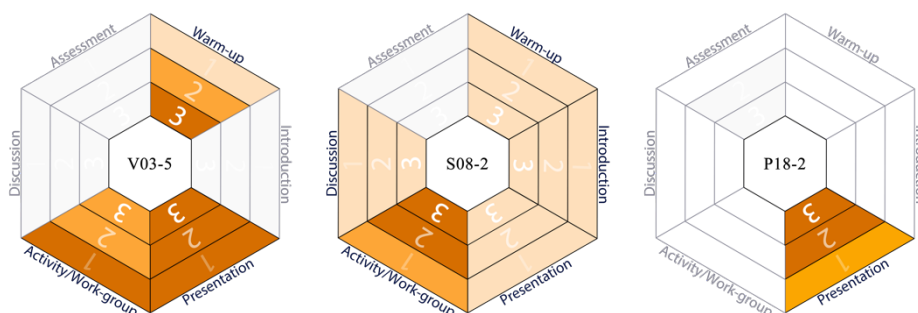
[2] The cultural axes considered are: axis of language (that includes literature, foreign languages, and gym subject matters); math axis; scientific-technological axis; and historic and social axis.
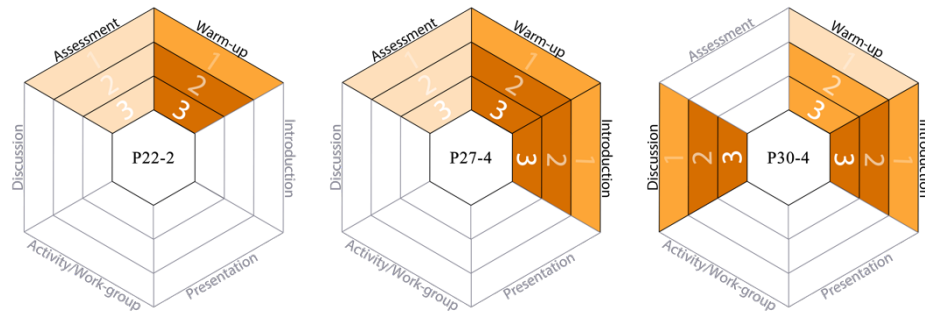
Fig. 5 shows the mathematic axis. In this case all the teachers are math and physics teachers and all of them have no previous experiences in arts. Almost all started the lesson with the "Warm-up" and just two of them performed an "Assessment" phase. What is interesting to see in TECTSs is that even if all of them present a quite complex movement, there are three cases (S08-2; P22-2; P27-4) were one or more didactic categories present very minimal movements in all the three indexes created. Specifically, this happened in the "Warm-up", "Introduction", "Presentation", and "Discussion" of S08-2, and in the "Assessment" of P22-2 and P27-4. Observing the transcriptions of Labanotation the researcher found that these three teachers spent a very few time in those specific activity. Thus, looking at all the six teachers in this axis, it seems that when teacher spent few time in one didactic activity, her/his complexity of movement is low. Contrarily, when teachers can spend more time in one didactic activity, their complexity of movement increases. This result raises several questions such as: Is the time the main variable that affects teachers' movements? Are teachers aware about this phenomenon? Does the body need more time to "warm-up" and/or follow the didactic activity than the mind? Are there other aspects that compensate for this lower use of body (e.g. voice)?

Figure 6 – Comparison of scientific-technological axis teachers
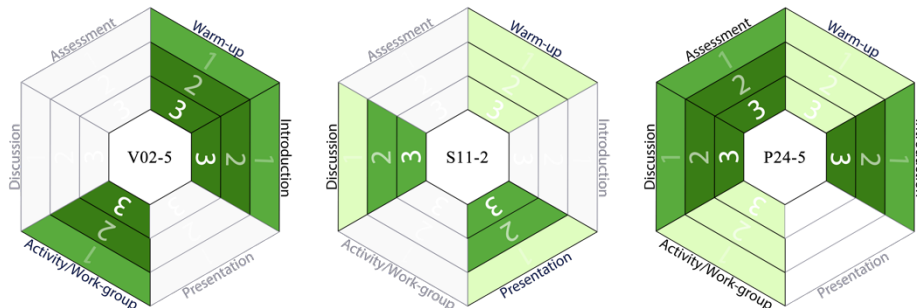
With what concern the scientific-technological axis (Fig. 6), the three teachers represented come from different contexts. V02-5 is a math and physics teacher from an high school of Verona, S11-2 is a math teacher from the VET school of Sant'Ambrogio di Valpolicella (both in the north of Italy), and P24-5 is a math and physics teacher from the high school of Putignano (in the south of Italy). All of them represent different styles. V02-5 present e linear performance with an high level of movement's complexity. Similarly, S11-2 has a linear performance too, but in this case she/he performed a lower movement's complexity during the lesson. The last teacher (P24-5) shows different levels of movement complexity within the didactic activities used. In fact, although she/he used a low movement complexity during the "Warm-up" and "Activity/Work group", the movement complexity increases during the "Introduction", "Discussion", and "Assessment". Moreover, it is important to highlight that V02-5 has previous experience in dance. This could have affected her/his way to perform the lesson in a constant and complexity (in terms of body movements) way.

Figure 7 – Comparison of historic and social axis teachers
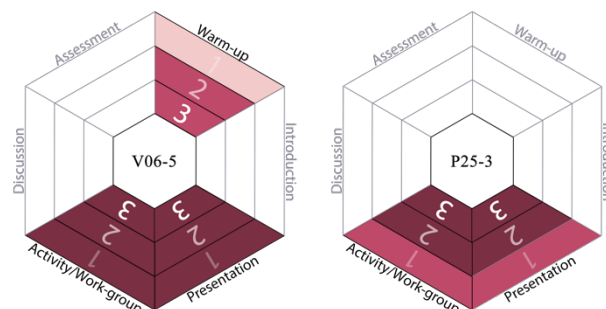
The last cultural axis explored is the historic and social one. Both of the teachers have experience in arts and specifically in theatre (V06-5) and dance (P25-3). Both of them come from high schools. Excluding the "Warm-up" phase both of them show high levels of movement complexity during the "Presentation" and the "Activity/Work group" phases.

6. Limits and further development

The present project had the aim to explore and adapt a new approach to the study and conceptualisation of teaching. Although the research path can provide new suggestions about teaching and teachers' practice, here the crucial point was to see the feasibility and benefit of a movement analysis integrated in a didactic one.

Due to the complexity of the new approach and the almost nonexistence of similar research studies, it could be highlighted some limits that need to be improved in further projects. First of all, teachers involved in the research were observed just one time each. Since the research protocol provided for the use of videotaping with the presence of the researcher during the observation, this situation could had an effect on teacher's management of her/his class. The researchers were aware of that during the interpretation of data. Due to the necessity of videotapes (needed for the Labanotation) the recruitment of teachers was voluntary-based; this naturally entailed that teachers observed were also teachers with more self-confidence in this kind of situation. Furthermore, even if movements can be influenced by the environment, traits and bodily way of manage the practice are deeply internalised and then in a large session of observation they will also showed anyway (Alford & Beck, 1997; A. T. Beck & Haigh, 2014; Wright, Thase, Beck, & Ludgate, 2003). Besides, the Laban analysis of movement and the adaptation done in this research project were not translated in an analytic, minimal, and behaviouristic analysis of body movements, but the researcher tried to use qualitative indicators that represent macro qualities of human movement.

The project ends (for the specific aims of doctoral programme) with the creation of a research path and an instrument able to represent teaching styles both

from a didactic and bodily/performative points of view. Further research paths can provide on the one hand the presentation of data analysis to teachers in order to validate the interpretation and meanings of body movements connected to their didactic activities; on the other hand it can be further explored the effectiveness of TECST in teacher education as well as in the self-reflection of teachers about their own practice.

7. Conclusions

Although data analysis did not highlight significant results in terms of statistical analysis, important conclusions can be defined. First of all the main aim of the present project was to explore, identify, define, and apply a new methodological approach for the study of teachers practice. Thus, the researcher does not want to generalise and obtain significant correlation among variables explored. Indeed, what is important to highlight here is the development of a new research path and, specifically, a research instrument that can show at the same time many information.

TECST, in fact, can represent the teacher's style including both didactic activity and body language and performance. In this sense it can be possible to speak about teaching as performance and reflect on it in front of evidences. In fact, the instrument developed lets to observe the didactic activities as well as the body language and movements performed in each of them. In this way, the same hexagon can help and support the reflection on teaching considering all the aspects.

Figures 8 and 9 show the differences between teachers with experience in dance, theatre and other performing arts and teachers who do not have these types of experiences. Teacher with experience in arts show more often than the others high levels of movement complexity and constant levels in all the didactic activities. Although this result can not be attributed exclusively to their experience, this could be considered a starting point for a follow-up interviews with teachers. For instance, P23-5 has experience in theatre, but she/he is the only teacher who shows a low (but constant anyway) complexity of movement. This "outsider" raises a crucial reflection. These analysis are explorative in nature, thus

the aim is not to judge teachers complexity of movement, indeed, what is important to observe for the body literacy analysis is the coherence and the ways through which teachers perform their lesson. In this perspective P23-5 is not an "outsider" anymore, but she/he follows the same scheme of others, that is a coherent, fluid and constant way to develop her/his own performance. Teachers in Fig. 9, in fact, with no experience in arts, show a lower coherence in their movements.

Figure 8 – Teachers with experience in arts
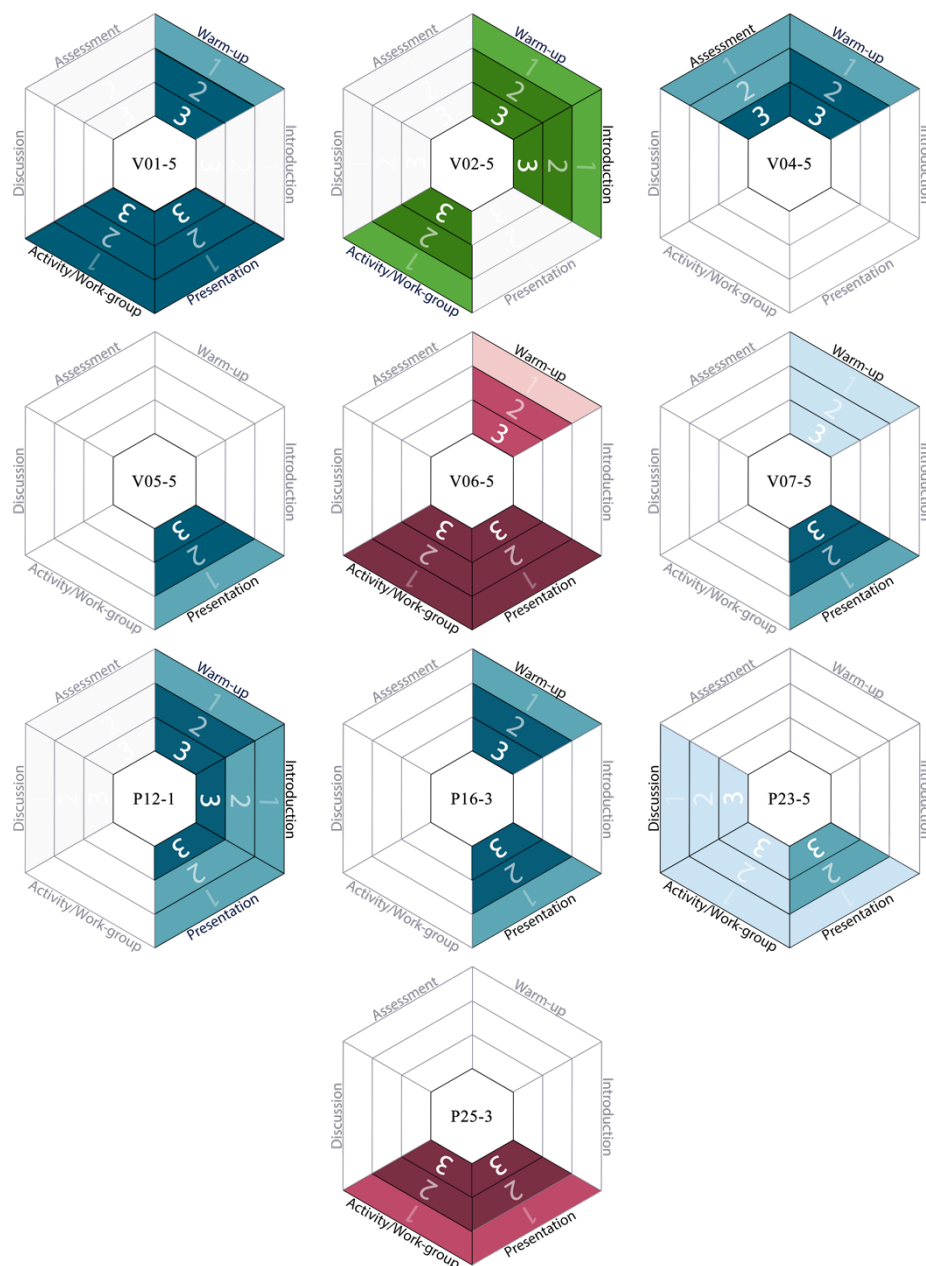
Figure 9 – Teachers with no experience in arts
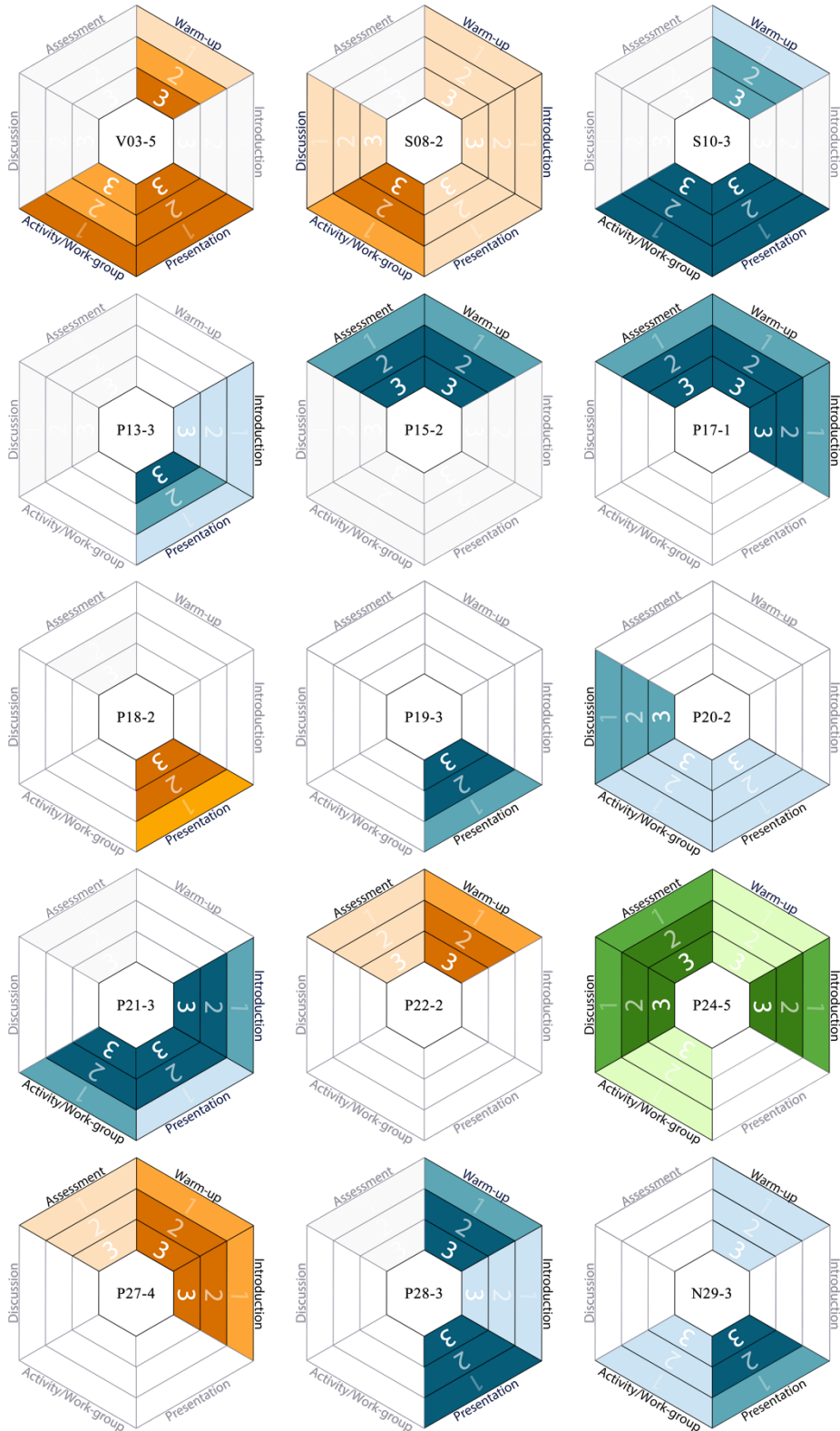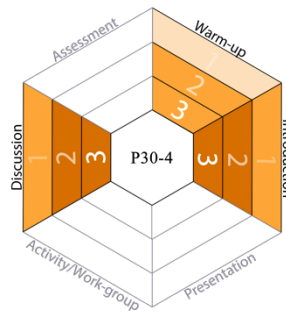
Based on these comparisons two main choreographic teaching styles are identified. The criterion that distinguishes these styles is the coherence. Fig. 10 shows few example of the first style (Climax Style), where there is a high level of coherence among didactic phases with reference of their movement complexity.

Figure 10 – Climax style
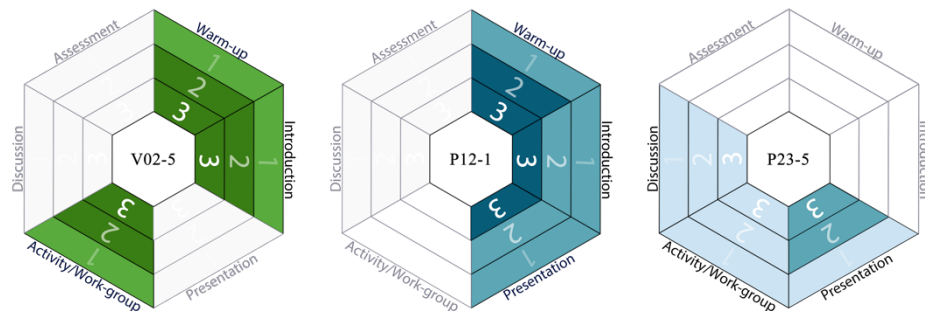
Conversely, Fig. 11 shows the second teaching style (Roller-coaster style), where teachers carry on their performance with less coherence among didactic activity based on the movement complexity. Although the Warm-up phase can be considered apart from the others as it represent indeed the "warming" moment of the lesson, these teachers show very different levels of complexity during this first phase.

Figure 11 – Roller-coaster style
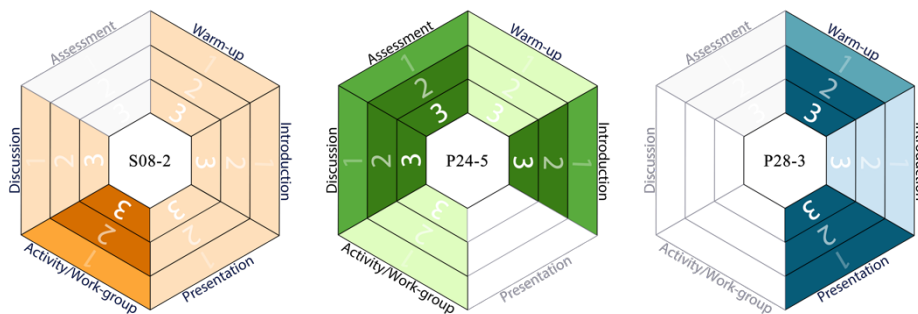
As a result of a complex work of connection between different frameworks and creation of a new research path able to explore the whole teaching performance, this contribution raises several questions for further and deeper research project.

First of all the next step can be the exploration of teachers perception of their teaching and the comparison with these results. Body practice is not easy to conceptualise. Anyone who has experience in performing arts knows how difficult is to think about body movement and be aware of it, of all of body parts. As an important tool in the didactic communication as well as in the way through which professionals learn and explore during their work activities, the reasons and teachers perceptions on their bodily performance should be investigate.

Secondly, follow-up interview can be useful to correct the interpretations of teaching styles. Did they choose consciously how to perform their lesson? Which are the reasons that allowed teachers to perform in a way than in the other?

The role of body in teachers practice is concentrating more and more attention among educational researchers. The creation and the development of new, innovative and interdisciplinary way to explore these aspects are needed in order to let the research go beyond the traditional view of education.

5. Inside the "body box": Exploring Feedback in HE

«The function of the artist in a disturbed society is
to give awareness of the universe, to ask the right
questions, and to elevate the mind.»
Marina Abramovic

Abstract

In recent years, educational research has focused, special attention on teachers' practical-operative experience. The growing interest in the concept of practice within workplace settings has become a turning point in the sociological, anthropological, and educational studies. The present study aims to explore teachers' perceptions and conceptions of feedback and their daily professional practice with a special link to the use of body movement while providing feedback during the class. In fact, even if educational research has paid a lot of attention on the concepts of practice and performance, very few are studies that consider the main actor included in the definition of those concepts: the body.

A methodological triangulation of methods that follows the principles of the mixed method approach was used in order to pursue this aim. Results identified two types of issues: the first one concerns the relation teacher-students during the feedback practice; the second one concerns the own internal coherence of teachers between what kind of verbal feedback they provide during the lesson and what the act bodily at the same time.

Key words: Feedback; Educational assessment; Body; Teachers' perception; Laban Movement Analysis

1. The interdisciplinary framework: mash-up theories

This research project takes start from the Ph.D work of the Author. Specifically, as an implication of the findings of that previous research study this one adapts the methodological (Pentassuglia, 2017) and theoretical framework explored in the context of secondary school teaching for the study of feedback in Higher Education teaching practice. As result, the exploration on the role of body in professional practices and the analysis of movement and body practice as a way to explore further aspects of professionals have been used for the study of a particular element of teaching: the feedback. Thus, in order to better understand how different theoretical frameworks can be mashed-up to create a coherent background able to support these types of investigations, there is the need to describe the main literatures used to achieve this aim.

In recent years, educational research has focused, special attention on teachers' practical-operative experience. The growing interest in the concept of practice within workplace settings has become a turning point in the sociological, anthropological, and educational studies (Schatzki, Knorr Cetina, & Von Savigny, 2001).

Theories based on the perspective of sociomaterialism have provided an arena in which it can reflect on the nature and on the role of materiality and its relationship with social phenomena. Researchers such as Sørensen (Sørensen, 2007, 2009) and (Fenwick, Nerland, & Jensen, 2012) affirm not only that educational research has widely ignored aspects of materiality and bodily knowledge for many years, but also that very often, material aspects have been investigated and studied making them as immaterial things. This happened mainly to give more attention to social, political, and cultural aspects. Schatzki (1993, 1996a) considers the body as one of the four essential key elements for the study of professional practice. However, body has often avoided in educational research.

Organisational studies could represent an important source for the discussion as they have a longer tradition in the investigation of practices. Specifically, some authors considered the close relation between practice and knowing (Kennedy,

Billett, Gherardi, & Grealish, 2015). Bruni et al. (2007) affirm that the concept of practice provides a different way of theorising knowledge and work letting us to capture the materiality and indeterminacy of specific forms of knowledge: «knowing is structured in practice through relation to the objects and artefacts that are folded into professionals' everyday work» (Hopwood, 2016). In summary, what it can be learnt from this perspective is the crucial role of the focus on activities and practices in determining professional work. Thus, the questions now become: where do we need to focus our analysis in order to study professional practice? As stated above, based on this corpus of literature (Barad, 2013; Bruni et al., 2007; Eraut, 2004; Fenwick, 2010; Fenwick & Landri, 2012; Fenwick et al., 2012; S. Gherardi et al., 2007; Silvia Gherardi & Strati, 1988; Lefebvre, 1991; Schatzki, 2009, 2010, 1993, 1996a; Schatzki et al., 2001; Thrift, 2004, 2006; Wiggins, 2012) there are four essential dimensions that an analysis on professional practice must consider: times; spaces; bodies; things.

Despite the importance of the bodily practice in the definition of professionals' work, it cannot forget the importance of theory in placing practice in a «coherent narrative» (Taras, 2012), as a dramaturgy of phenomena. As M. Taras argues «theory provides the coherence and the logic for the practice» (2012: 2). If theory creates the coherence for the practices and the practices can provide information on professionals' knowledge and way of knowing, what is interesting is the investigation of the relation of professionals' perceptions and practice.

In the last decades, many authors focused on teachers' and students' perception of assessment and feedback as a key element that can determine and influence professional practice (Brown, 2004; Brown & Hirschfeld, 2008)(Brown, Hui, Yu, & Kennedy, 2011; Zhang & Burry-stock, 2003). Besides other studies about teachers' and students' conceptions of learning, teaching and self-efficacy (A. Bandura, 1977; Albert Bandura, 1986, 1994; Kember, 1997; Kember & Gow, 1994; Marton, Hounsell, & Entwistle, 1984; M. Tschannen-Moran, Hoy, & Hoy, 1998; Megan Tschannen-Moran & Hoy, 2001) what these studies highlighted is the crucial importance of perceptions and conceptions in defining the practice. Thus, they become an important source for understanding the work and the daily practice. An aseptic analysis of practice is no longer enough.

Here the setting is the HE context and teachers' work. Specifically, attention will be paid to a particular aspect: the use of feedback. This focus can be justified because of the consideration, in HE, of the assessment and, more specifically, of formative assessment «as complex, diagnostic and supportive feedback which is used to improve outcomes, involves learners and their understandings of parameters» (Taras & Davies, 2013).

«Much of the feedback provided by tutors is often a shot in the dark that may not relevant or helpful to learners and learning. This vast generalisation comes from my own experience of discussing 'feedback' about their work with learners. It also comes from the National Student Survey which has demonstrated year after year that feedback and assessment fall short of desired and expected results […]. Only learners can really tell us if our assumptions and presumptions about their work and thinking is accurate» (*Ivi*: 35).

2. Rationale for the study

Feedback could be defined as an «information about the gap between the actual level and the reference level of a system parameter which is used to alter the gap in some way» (Ramaprasad, 1983). M. Taras (2013) points out about the definition of "gap" as linked to learners' actions rather then represent something missing. Thus, she also reports that «[*feedback*] requires knowledge of the standard or goal, skills in making multicriterion comparison, and the development of ways and means for reducing the discrepancy between what is produced and what is aimed for» (Sadler, 1989). Although these definitions clearly explain what feedback is, there still is a wide confusion at the international level about it as well as about the definition of assessment (Taras, 2005, 2009, 2010, 2012). Specifically on the definition of feedback, some authors seems to merge the assessment process with feedback creating a confusion. D. Boud and E. Molloy (2013) define feedback as the «process whereby learners obtain information about their work in order to appreciate the similarities and differences between the appropriate standards for any given work, and the qualities of the work itself, in

order to generate improved work» (Boud & Molloy, 2013). They also affirmed that they create this definition in order to:

- Put the student at the centre of the activity;
- Recognise the crucial role of external standards shared with students;
- Consider it as a continuous process and not as a single act;
- Appreciate the variation between the standards and the work itself;
- Consider the feedback as necessary for the action (*Ibidem*: 6-7).

Although the ideals of this definition are good, there are some problems. First of all, putting the learner to the centre could represent a praiseworthy aim, but it still meets with the risk to create a disparity of power in the teaching-learning process. Furthermore, sharing criteria and standards even though is an important aspect, it is not something related to the feedback, but it is related to the assessment process. In addition, considering the feedback as a continuous process and not as a single act could convey the idea that feedback cannot be clearly defined as an action. Finally, considering the feedback as the action that allows student action to improve learning process still link a "neutral" process to the effect of the use of feedback by students and thus, to functions rather than processes. As a boomerang, these problems and misconceptions are close related, in the opinion of the Author, to the confusion still present at the international level about summative and formative assessment processes. As a dangerous legacy of misconceptions about assessment (Black, Paul, William, 1999; P. Black & Wiliam, 1998; Taras, 2002, 2005, 2007a, 2007b, 2009, 2012; Taras & Davies, 2013) the challenge to recognise the assessment process as neutral (Scriven, 1967) without a powerful and emotional links to the learning process is still open.

This project aims to study teacher's use and conceptions of feedback focusing the attention on the four elements stated above. Has basis for the study, the present article will follow Taras's rationale of assessment and feedback:

«Assessment is judging and giving a value to something (even if this is unexpressed). One can assess implicitly and not provide feedback. Feedback is just

one product of assessment. Is feedback a part of assessment? No, it is the next step, which is a consequence of assessment. If ethical and transparent, we would expect that it is an articulation of the judgment in terms of specific criteria, standards and goals in order to explain and justify these. This was the basis or the rationale that supports explicit assessment parameters and refutes the possibility of assessing something 'in its own terms'» (Taras, 2013).

In this case, the body will be considered the glue and the *fil rouge* through which these elements can be studied. «How tutors understand assessment processes, functions and products impacts on how they organise their teaching and learning activities and how they envisage the roles learners should play» (Davies & Taras, 2016).

As one of the conclusions of their survey about lecturers' beliefs on assessment, Davies and Taras (2016) consider communication as an element that can affect the understanding of assessment. This consideration is one of the starting points for this project as the body could be considered a crucial element in the communication (in supporting or not verbal ways to communicate intentions).

Research questions elaborated for these purposes are as follow:

- How teachers use their body during the feedback?
- What the exploration of body in the practice of feedback tells us about their knowledge?
- There is coherence between teachers' perception of feedback and their use of body in the practice?

3. Methodological approach

In order to better understand the relation between teachers' perception of feedback and their daily practice, a mixed-method design has been used. This choice was made thanks to the five key characteristic of mixed method identified by Greence and Caracelli (2003):

- «Triangulation, or the search for convergence in the results.

- Complementarity, or overlap in the different facets of a phenomenon.

- Initiation, or the discovery of paradoxes or contradictions.

- Development, or the sequential use of methods, such that the results of the first method inform the use of the second one.

- Expansion, or the study's depth and scope, which is revealed a it unfolds» (Anguera, Camerino, & Castañer, 2012).

The methodological triangulation of methods or the exploration of teachers' body movement during their professional practice represented the best way to explore this complex research object. Moreover, as there are not many research studies about the comparison between theory and actors' perception and body practice in professional context, different points of view of the same problem can offer an increased understanding of it. «Triangulation is the most well-known and widely used among mixed methods design […] and aims to obtain different, yet complementary, data about the same episode […] so as to better understand the research problem» (Anguera et al., 2012). Thus, the exploration of the body during the feedback practice will be done thanks to two steps. The first one will provides field observation during the class. Specifically, the observation of movements will follow principles and guidelines of Laban Movement Analysis (LMA). Then special attention will be paid on four aspects: the space, the time, the weight, and the flow. In order to adapt Laban's principles to our aims, their interpretation will be contextualised.

The second step will be aimed to a deep understanding of what are teachers' beliefs, perceptions, and understandings on feedback and how these correlate with data gathered from the observations.

3.1 Step 1 – The construction of the observational grid

R. Laban, one the most important theorists of the movement of the last century, based his studies on the assumption that every movement and every part of the body reveals something that goes beyond the mere behaviourist reading. He

developed a theory of movement analysis (LMA) and a coding system for human movements called Labanotation. Better then others, this system is able to codify any body movement also out of dance context.

His theory (Laban, 2011) is based on four main characteristics of body movement that must be taking into account:

- The *space*, related to the use of body in the stage;
- The *time*, linked to the rhythm of body movement;
- The *weight*, the use of energy in each movement as that could be connected to the intentionality of movement;
- And the *flow*, which represents the dynamic of movements.

For Laban, all movements express intentionality. Although it could be explicit or implicit, there is always a grade of intentionality in each movement.

Then these four elements represent a guideline for the analysis. Clearly, these elements must be contextualised in order to be useful for an analysis in educational context. The need here is to understand how to interpret these elements in order to better understand the context. Here the focus is the use of feedback during the class in the HE context.

As a «product of assessment» (Taras & Davies, 2013), feedback could be considered as one of the key elements of the teaching-assessment-learning process (Ramaprasad, 1983; Sadler, 1989; Taras, 2003, 2010, 2013).

Although many studies had been focusing on the contents and on the purposes of feedback (Merry, Price, Carless, & Taras, 2013) in this project the focus is on the traits of the "act" of feedback. Literature highlights different characteristics. Bols and Wicklow (2013) recall four of them; feedback should be *timely*; *accessible*; *legible*; and *konstructive* (TALK). Similar elements had been found by NUS (2010). They found ten principles of feedback that reflect what university students think on how teachers' and tutors' feedback must be. In 8 out of 10 on these principles they highlights characteristics such as time, clarity and legibility of contents, constructiveness, accessibility and flexibility, and the actors involved (e.g. self-assessment and peer-assessment processes). Similar adjectives recur in

the English National Student Survey (NSS), in particular in the "Assessment and Feedback" section.

Table 1 – Assessment and Feedback section of NSS

Assessment and Feedback
- The criteria used in marking have been made <u>clear</u> in advance
- Assessment arrangements and marking have been fair
- Feedback on my work has been <u>prompt</u>
- I received feedback in <u>time</u> to allow me to improve my next assignment (*not present from 2014 version*)
- I have received <u>detailed</u> comments (written or oral) on my work
- Feedback on my work has helped me <u>clarify</u> things I did not understand

These characteristics are related neither to contents nor to the purposes of feedback, but they are linked to the aspects of feedback that could affect the final effect of it.

From this literature, it can be highlight four aspects that can synthesise issues shown. Feedback should be:

- *Timely* (feedback should provide prompt information);
- *Accessible* (is related to the importance to let students to have full access not only to their marks for example in the website or after a formal exam, but also in other informal moments during the class);
- *Comprehensible* (feedback should be comprehensible for students not only in terms of language, but also in terms of process. Teachers should provide a clear explanation of feedback and on the process followed to obtain it);
- *Constructive* (this aspect consider the role of feedback to improve future learning. Then it explore if it is useful for further improvements).

In order to contextualise these aspects with the elements of Laban's theory explored above, each of them has been intersected each other as shown in Table 2.

Table 2 – Conceptual intersection of elements found

	Timely	Accessible	Comprehensible	Constructive
Space		●		
Time	●			
Weight			●	
Flow				●

Based on this table four new aspects emerged, which include both movements and feedback aspects.

Table 3 – Observation grid

Criteria	Standards
Space-Accessible	1. The teacher does not move in the space when providing feedback. There is no possibility for students to approach the teacher's feedback directly 2. The teacher does not move in the space when providing feedback, but she/he gives students the possibility to approach her/his feedback directly 3. The teacher moves in the space, but this is not really functional to a better understanding of her/his feedback. Students have a limited access to feedback 4. The teacher moves in the space in order to allow her/his students to better understand the feedback. Both teacher and students move in a functional way to give students full access to feedback
Time-Timely	1. When feedback is provided, the body does not react to support the process. Even if feedback is provided promptly, it is difficult to perceive it 2. When feedback is provided, the body rarely reacts to support the process. If feedback is provided promptly, the body rarely reacts at the same time 3. When feedback is provided, the body often reacts to supports the process. If feedback is provided promptly, the body often react at the same time 4. When feedback is provided, the body always reacts to supports the process. If feedback is provided promptly, the body always reacts at the same time something anticipating the moment
Weight-Comprehensible	1. The teacher provides the feedback without any explanation. Energy in body movements is very little 2. The teacher provides the feedback without any explanation, but energy in body movements is consistent 3. The teacher provides the feedback explaining it. Energy in body movements is very little 4. The teacher provides the feedback explaining it and the energy of body movements is consistent

Flow-Constructive	1. *Feedback provided does not include information on further improvement. Body movements interrupt the process changing position*
	2. *Feedback provided includes little information on further improvement. The body changes to a series of positions fragmenting the process*
	3. *Feedback provided includes much information on further improvement. The body changes to a series of positions fragmenting the process*
	4. *Feedback provided includes much information on further improvement. Body movements are fluid and they follow the process*

- *Space-Accessible*: How the teachers make the feedback more accessible in terms of space? This criterion will explore how the space is used as functional to let students to have a good and full access to the feedback. This is not related to written feedback. How, for example, do teachers move into the class in order to be sure that oral feedback is well understood by students? Is her/his use of space functional for this?

- *Time-Timely*: Is feedback prompt? This criterion will take into account the time of feedback. In terms of movement this could be translated with the velocity of teachers' movements and how they support (or not) a prompt feedback.

- *Weight-Comprehensible*: the clarity of the feedback is an aspect highlighted by many. This logical connection between weight and comprehensiveness relates to the measure in which the clarity of the feedback is supported (or not) by the body/movement energy. Is the energy of movements functional for the clarity of feedback provided?

- *Flow-Constructive*: This last criterion must be contextualised better. The flow element in Laban's theory is related to the dynamic of the movements. In order to be constructive to students needs feedback should not interrupt the dynamic of process. Then the question become: are movements dynamically supportive for a constructive communication of feedback? Or they "block" the process with no opportunity to continue?

3.2 Step 2 – The Questionnaire

Step 2 will be focused on the exploration of teachers' beliefs on feedback. Questions that guide this step are: what do teachers think about feedback? Which are for them the elements that could characterise an effective feedback? How they consider their feedback in practice?

Table 4 – Questionnaire on lecturers' perception of feedback

	Questions
PART 1	1. Could you give me your definition of feedback? 2. Could you provide some examples of your feedback practice during the class? 3. Which are, in your opinion, the important elements that define the feedback as effective feedback?
PART 2	4. Do you think that students should have full access to their feedback? If yes, how do you pay attention on this aspect during the class? If not, why not? 5. Do you think that feedback should be prompt? If yes, how do you pay attention to this aspect during the class? If not, why not? 6. Do you think that feedback should always be comprehensible for students? If yes, how do you pay attention on this aspect during the class? If not, why not? 7. Do you think that feedback should always be constructive for students for their further improvement? If yes, how do you consider this aspect during the class? If not, why not?

4. Data analysis and results

Data analysis followed the exploration nature of the study. 12 teachers from the University of Sunderland (UK) were observed during their lesson; 6 of them come from the Department of Dance, Drama and Music and the other 6 come from the Departments of Education, Science and Social Sciences. Seven of teachers are female (two from Education and five from Dance); four male teachers come from the Education field and only one male teacher comes from Dance's Department.

The first part of the questionnaire includes three general questions about feedback. The first one was related to their *definition* of feedback. Even when teachers refer to the process of feedback only one of them made a reference to the "actions" of the process. Nine of them focused their definition to the contents of feedback provided. The others refer to the process and function of the feedback without any reference to actions and/or body movement.

The second question of the questionnaire is about the *practice* of feedback ("Could you provide some examples of your feedback practice during the class?"). Eight of them still did not make reference to any actions or body movements/activity to explain their practices. Most of them only refer to verbal or written feedback provided during or after the class. Only one of the teachers (from Dance Department) explains particular action of her/his practice.

The third question of the questionnaire was about the elements that can characterise an effective feedback. All of them refers to contents aspect of feedback such as the understanding of gaps, the positive aspects of learning to be highlighted, and "constructive points" to help student to improve. Only one of them (from Education) made a reference to "quick" and "constructive" aspects of an effective feedback, but even if she/he highlights that, she/he did not make any reference to actions and/or body movements to provide it.

The second part of the questionnaire was directly connected to the observation grid. Both of them explored the criteria found in the literature review: Space-Accessible; Time-Timely; Weight-Comprehensible; Flow-Constructive. Here the aim was to observe if there are correlations between what teachers think about their feedback practice and what they do during the teaching practice.

Table 5 shows the means of criteria used for the observation of the two groups of teachers. There are not very important differences between them. Standard levels are from 1 to 4 and they explore the relation between the use of body and the contents of feedback provided (see above).

Table 5 – Means of data from the observation grid

Criteria	Education	Dance
	Mean (SD)	Mean (SD)
Space-Accessible	2.7 (.74)	3.4 (.82)

Time-Timely	3.2 (.50)	3.2 (.52)
Weight-Comprehensible	4 (.00)	3.7 (.82)
Flow-Constructive	3.6 (.97)	2.7 (1.1)

Six teachers who obtain grade 3 or 4 in the observation grid answered to the connected question with no reference to actions or body movements, even if the questionnaire specifically ask to make examples of how the criterion of "Space-Accessible" was considered. Only one teacher explicitly refers to body movements such as "eye contact" or "visual monitoring of the class". What is interesting to highlights is that this teacher obtained the lowest grade in the observation grid for this aspect. This is an interesting case because this teacher obtained a lower grade even if she/he explicitly refers to body movements. Contrarily when she/he did not make any reference to body movements, she/he obtained the highest grad in the observation grid. This case could be a good example to explore more deeply the awareness of body movement during the class and its connection with what teacher thinks to do. Field notes highlighted this aspect. The researcher had the feeling that this teacher was nervous for something (maybe for the presence of the observer). This could have affected her/his control of body movements.

With what concern the criterion of "Time-Timely" all the teachers interviewed confirm that promptly feedback is important for students, but when they tried to explain how they provide a timely feedback they only refer to written or verbal feedback. In particular, most of them consider verbal feedback as the most immediate way they have to provide a prompt feedback: «as it is verbal, feedback is immediate» (Ed.5). This is very interesting because four of them obtain grade four in the observation grid; this level is given when not only the body always support the verbal feedback, but also it sometimes anticipate the voice. All the other teachers obtained grade three for the same criterion which means that the body often reacts promptly with the voice. Then there is a little variance between what teachers think and what they act in the practice. Moreover, no particular differences were found between the two groups of teachers (Education and Dance).

The third criterion is "Weight-Comprehensible". Only one teacher (Education) refers to the importance of the body language as one of the aspects to

be considered for a better comprehension of the feedback. Nine of teachers obtained grade 3 or 4 in the observation grid. Eight of them did not answer in a coherent way to the question (e.g. focusing on verbal and non-verbal signs from the students; focusing on language; adopting peer-feedback as it is considered more understandable for students).

As the last criterion, "Flow-Constructive" was the last aspect investigated in the questionnaire. No one refers to body movements and/or actions. References mainly concern about the contents of the verbal feedback provided during the lesson (e.g. "Medal/Mission" practice). In one case the teacher (Dance), who obtained grade four for all other criteria, provided feedback with little information on further improvement (grade 2 of the observation grid). Despite that body movements were always fluid and they followed the process showing more than just the exercise (grade four of the observation grid). This could be another example of the little awareness of body movements during the class as a meaningful "tool" for teaching.

5. Discussion

To conclude the analysis of this case study on the exploration of body within the feedback practice some issues were been identified. Specifically were been identified two types of issue: the first one concerns the relation teacher-students during the feedback practice; the second one concerns the own internal coherence of teachers between what kind of verbal feedback they provide during the lesson and what the act bodily at the same time. Following this categorisation were found six issues relate to the relation teacher-students:

- *The mother's look*: as it is well known, babies learn to express their emotion looking closely their caregivers. The mother, as a mirror, reflects their emotions and let babies learn the difference between them and also how they feel and how to resolve it. This aspect was identified during a class with a teacher from the Education group. Here the teacher followed both with body and voice the "tension" of the moment. One of her/his students had problems

with an exercise and did not find the solution. The teacher approached her asking questions to let her to solve the exercise and find the solution by herself. During this episode the body of the teacher followed student's thinking: at the beginning she/he was calm and gave space to the student to think; after a while, when the student began to solve the exercise, she/he gradually moves quicker and bigger to end with jerks when the student finally finds the solution. In this case, the body helps to reflect the (learning) tension of the student and to help her to understand when she is on the right way.

- *Thai Chi / Trainer*: These two images refer to two different moments of the same lesson. It is again a teacher from the Education group. The reference here is to two moments of the lesson, which concerns two different kinds of feedback. The first moment is when the teacher asks for questions during the lesson. In these episodes she/he is calm when listening to moves more and quicker when replies to students questions and/or feedback. This kind of dynamic was very common among teachers observed. The "voice" of students is always "welcomed" by the teacher as during the Thai Chi practice when the practitioner learn to welcome the attack through her/himself in order to find the better way to reply stronger.

    The second image was the trainer. Here the episode concerns the exercise that students do during classes. Even if the body follow the situation and the student's thinking, it is not like the look of mother shown above. In this case the teacher is more active. It does not matter if students ask for help or just for assert something. The teacher supports with body movements all the episode both when the student is speaking and when she/he replies. There are not continuous sequences of movements. There are series of positions, which gradually become more intensive, but always the body is present.

- *Springboard*: the trampoline is flexible and it moves as a response to the force of a diver. In order to give enough energy to the dive, the response to this force is always more than the diver's one. The episode is very similar to the first one (the look of the mother), but here the teacher moves intensively even when she/he is listening to the student. There are not problems or solutions to be found. The teacher just follows the student's thinking

approving it with the body movements (jerky and quickly) and breaking the moment with bigger movements to confirm student's argument.

- *The elf on the shoulder*: This image refers to episodes where students are working on an exercise. As an elf on their shoulders the teacher does not interfere with what they are doing, but with her/his voice provides general feedback to guide students. Moreover, she/he is not in front of them, but among them letting them to listen the feedback without interrupt the work.

- *Touristic guide/headlight*: This kind of relation was very common during dance classes. The teacher is in front of all the students and guides the warm-up both with voice and the body. Specifically, the energy is concentrated in her/his arm that supports the voice. Students only need to follow their teacher as the headlight of the lesson.

- *Improvisational theatre*: Improvisational theatre is a form of theatre where most of what happen on the stage is created during the moment. The audience plays an important role as it intervenes directly in the performance with suggestions for further development. Then audience and performers are all involved as active participants. In this case, students are creating the piece (the setting here is a dance class). The teacher is among them and she/he suggests and helps students to develop their own performance. Not only here the teacher does not interfere with students' work providing feedback closely linked with their ideas, but also there is a decentred role of the teacher. Even if she/he has a key role in the lesson, there are students on the stage. She/he uses space, body, voice and objects to be present in class without concentrate the focus on her/himself.

The other four issues found are related to the teacher's coherence between body and voice.

- A *car with broken brakes*: Even if the driver deeply knows the car and all its parts, if brakes are broken she/he cannot control it properly. In the class the teacher could exactly know how to provide feedback properly and which are the key elements to use it properly, but if she/he does not control how her/his

messages are conveyed and perceived they could be misunderstood. The teacher who inspired this issue provided interesting data; when she/he replied properly and with explicit references to body movements to the questions about criteria investigated, she/he obtained the lowest grades in the observation grid. Contrarily, when she/he replied with no coherent answers to the questions, she/he obtained the highest grades from the observation grid. This could mean that maybe she/he is not very aware of how she/he uses body movements during the lesson and how students perceived it. Moreover, the observer noticed that maybe she/he was nervous during the lesson (especially when she/he needed to explain definitions on summative/formative assessment and feedback which are the topics of this study). Probably her presence influenced her/his teaching.

- *The warming process of hearth and water*: During October the weather begins to be colder. However, if you try to go to the beach you can find a warmer sea. Contrarily, before the summer, even if the weather it's becoming hotter, the sea still is colder that the hearth. Water need more time to change the temperature. As the difference between the hearth and the water, this teacher shows a difference between body movements and voice. At the beginning of the lesson the voice was very active, but the body does not always react at the same time (or in a coherent way). After I while the body begins to react properly following the intensity of the voice, the tension of the episode and the questions from the students. At the end of the lesson the body still reacts promptly to give feedback even if the voice does not always provide it. It seems as if the body needs more time to warm-up for the lesson, but when it is ready it totally supports the voice making feedback clearer. Again we cannot know if the teacher was conscious on this dynamic, but this is another starting point for further reflections on it.

- *Soap bubbles' game*: One of the common game with soap bubbles that children often do is to try to let them fly helping them with the breath. The teacher who inspired this image did not receive good grades on the observation grid with what concern the coherence between what kinds of feedback she/he provides and how body moves during that. However, fields

note highlighted this interesting aspect of her/his lesson. The body moves more and provide a clearer feedback (linked with the voice) only in few episodes that have a common characteristic: she/he is the central actor on the stage. Then notes suggested that it seems that the body promptly support episodes that in her/his opinion are more important. When peer-feedback is allowed the body loose its effectiveness.

- *Scale*: The scale represents an interesting dynamic that field notes highlighted. During this lesson the voice and body movements balance out. When she/he provides general feedback, during exercises, the voice is high and the body move slower but it is fluid. Contrarily, when she/he provides individual feedback the body promptly reacts providing feedback while the voice becomes quiet. This kind of dynamic lets the observer to perceive continuity in the lesson, without "dark" moments that can fragment it.

Table 6 – Summary of issues

Relation teacher-students during the feedback practice	Teacher's coherence between body and voice
1. The look of the mother	1. A car with broken brakes
2. Thai Chi / Trainer	2. The warming process of hearth and water
3. Springboard	
4. The elf on the shoulder	3. Soap bubbles' game
5. Touristic guide/headlight	4. Scale
6. Improvisational theatre	

6. Limits and further developments

The whole research project has been developed in a period of almost three mounts[1]. Although the theoretical framework about the study of body in professional contexts is one of the field specialisation of the Author, the specificity of the study needed further detailed analysis on feedback theories and

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[1] The University of Verona funded the research stay. The project won the grant within the Cooperint Internationalisation Programme.

uses. For this reason Dr. M. Taras was identified as the best host academic mentor for this study as one of the most important expert on this theme at the international level. This exploration on feedback, with further and deeper discussions about the literature review needed time. Thus, the practical and operative phase was carried out in just one month. In this way, each lecturer was observed only one time. As result, the Author cannot assess if what has observed was the real "teaching style" of the lecturers or it was influenced by the presence of the observer.

The lack of time impeded also any form of restitution to lecturers involved in the project. This aspect could be considered as a further phase of the research study as a follow-up can allow a deeper exploration of lecturer perceptions of both feedback and body in their daily professional practice.

Obviously the observation grid and the questionnaire created of this specific study need further validations in order to be employed in future research projects. In this case the observation sessions were not videotaped. Thus, it was not possible to analyse an inter- and intra-observer validity of the instrument (the observation grid). This aim could be achieved in further research studies specifically addressed to this issue.

7. Conclusion

In recent years, the investigation of the role of body in professional practices and contexts has been becoming an important issue for educational research. Often avoided, the body plays an important role not only in the way people perceive the environment, but also in the transmission of certain meanings close related with the way people conceptualise phenomena.

This study tried to explore the relation between lecturers' perceptions of feedback and feedback they convey with their body during their daily work. The ten issues identified highlight some dynamics that come from the analysis. The innovative element of the present research project is the comparison of lecturers' perception with what their body expresses during the practice. During the last decades, educational research works around the concepts such as "performance" that often are centred on the role of practice, body, and practical aspects of work

settings. In spite of this, there are very few studies that deeply explore etymological, theoretical, and methodological aspects of the study of body in educational contexts. The present contribution aims to highlights these issues providing a concrete example of *ad hoc* instruments for the study of body in teaching practice and an interdisciplinary literature review as a solid basis for this kind of research projects.

Unpack the "body box" represents an actual challenge for educational researchers if the whole community wants to concretely step forward into the investigation of professional practices.

Acknowledgment

6. Discussion

The research questions stated for the present research project were:

- Can Art help to understand bodily practices and attitudes in teachers' work?
- Can we link the "bodily literacy" of teachers with their pedagogical competencies in order to perform the analysis of teaching choreographic style? How can it be possible?
- Is it possible to identify a choreographic style in teachers' activities?

The literature reviews presented and especially the one related to the methodological perspective of Arts-Based Research showed the real implications of collaboration between Art and scientific academic contexts. Despite the great amount of studies on embedded and embodied knowledge and ways of knowing both in educational and sociological fields, only studies from artists/researchers (cfr. Chap. 1, Par. 1.4) really provided a concrete and useful contribution to the development of research paths that go beyond abstract and evocative discussions about phenomena. Talk about the body, its meanings, and its role in the workplace and society it is not an easy task. For instance, dancers and choreographers have a long tradition in the analysis of body; they work with bodies and daily reflect on it and its meanings. Artists' contributions explored in the previous chapters such as C. Snowber (2016; 2002), M.B. Cancienne (2008), K. Barbour (2011), S.L. Foster (2011), K. Eliot (2007), P. Ottoboni (2014) provide evidences on how their expert point of view can really contribute to the development of studies and research

paths aimed to explore body and practices in different fields. For this reason, the "mash-up" of different contributions shows an interesting and new perspective for the analysis of professional practices. By letting artists and academics to talk each other allowed to create an interdisciplinary perspective that open up innovative research paths and different research questions.

As a consequence of this "ally" between Art and academic contexts, teaching practices were analysed borrowing dance tools for the study of body. The Labanotation and Laban Movement Analysis (LMA) gave a substantial contribution to the analysis of teaching practices as performative and embodied experience. The mix-method approach with the use of different techniques of data collections and analysis allowed the candidate to connect and link the analysis of body movement to the analysis of didactic activities. This covered in part the lack highlighted in Par. 1.1 about the investigation of teaching styles in the field of educational research. In fact, in research studies that explored teachers' styles, they were often described as didactic and pedagogic activities related to student learning processes. Conversely, this research project linked didactic activities to the use of body during the practice. As a result, it was possible to identify teaching choreographic styles that represent at the same time didactic and body aspects; in this sense it can be possible to talk about teachers' performance encompassing all the issues that this term recall. Based on what explored in the literature review of metaphors (cfr. Ch. 1; Par. 1.3) "choreography" was used as metaphor of teaching embracing all the aspects that Foster's (2011) and Adshead *et al.*'s (1988) definitions of choreography and choreographic style imply.

With what concern the results of the main study (second and third chapters), some issues could be explored. Chapter 2 explained the pilot study in the VET (Vocational Education and Training) context. This was a choice based on the assumption that in this particular context teachers are more than others actively involved in practices and, as consequence, the body should has an important role in their teaching. Thus, with this little group of teachers (four) it was possible to explore and pilot the research protocol, methods, and instruments.

First of all, after the whole literature review, the candidate investigated the different ways to adapt theories to research practice. Specifically, the

identification of both didactic and movement categories followed different issues. Didactic categories were created to represent different phases of a lesson. It was not possible to have didactic categories close linked to teaching method and techniques because the need was to find mutual exclusive didactic categories. Moreover, in order to pursue the aim of identify teaching style, using very specific didactic categories would be unsuitable as the focus was on the whole performance and not on teacher's efficacy. Thus, the six didactic categories identified thanks to the literature review (cfr. Ch. 3) represent six macro phases of a lesson and they are mutual exclusive categories. Secondly, with reference to the movement categories the candidate adapted the Laban theory of movement analysis to the study of teaching. This contextualisation needed a little change in the use of movement indicators for the study of body. R. Laban identified four movement categories: space, time, flux, and weight. Although, space, time, and flux were the same, the last one category was changed in part. The question was: how this category can be adapted for the context of study? It was necessary a different interpretation of it. In the Laban theory the weight represents the intensity of movement in terms of intention and dynamic. Thus, it was necessary to think about standards that can represent this aspect and that can be (at the same time) observed during teaching. In Laban theory the definition of the weight is closely related to a quality of body movement that reflects the dance style of the choreography. Moreover, due to the research design adopted it was not possible to investigate intentions of single movements, at least at this stage. For this reason, were identified three standards linked to these aspects of body movement; the teacher's movement could be, in terms of intensity and dynamic: stopped; continuous; jerky. In order to better represent these standards, this category was renamed "action". Again what it can be seen from this work of categorisation of criteria and standards for the analysis of teachers' movements, is the constant dialogue among different competencies in order to adapt tools and theories borrowed from the field of dance as well as the adaptation of a new and complex research protocol to the specific context.

Data analysis for this pilot study provided information about percentages, in terms of time, of each movement category's standard in the whole lesson as well

as within each didactic category. This information showed on the one hand the time that teachers used for didactic categories; on the other hand it was possible to better understand which sequence of movement's quality dominated the lesson. Moreover, graphs in Chapter 3 also represent the order in which didactic categories appeared. This aspect was crucial for the reflection on the research protocol. Although those graphs were able to sequence teachers' phases showing the flow of their lesson, they did not well-exemplified the "style" of teaching. It was hard to synthetize a teacher's choreographic style following those types of data analysis. For this reason, data analyses for the second (the main) study were modified.

The main study (see. Ch. 4) considered the whole sample of the research project, including both VET and secondary school teachers. This choice was made as result of a preliminary data analysis that did not showed differences between the two school contexts. As consequence, the candidate's assumption that the context could affect teaching style and, more specifically, the use of body in teaching practices was not confirmed.

Limits and problematic issues identified in the pilot study were then discussed and fixed. First of all, based on results of that study, it was decided to cut information about percentages of time spent within didactic categories for two reasons: firstly, it did not add any important information for the definition of teaching style; secondly, it was not an useful information for the purpose of this study as the assessment of teacher's efficacy and teaching in general was not the aim of this study. Moreover, TECSTs presented in Chapter 3 did not provided an easily reading of teaching styles and, at the same time, they were not comparable in an intuitive way. Thus, after the first step of data analysis that includes the coding of teachers' lesson recordings and the categorisation of Labanotation transcriptions there were created the three indexes of movement's quality (see. Ch. 4, Fig. 2). The construction of these indexes was not an easy task. Although the third one represents all the movement categories used for data analysis, it was noticed that different sequences of movement's quality would have been obtained the same result. For this reason the new graphs presented in Chapter 4 (see. Ch. 4, Fig. 3) include all the three indexes in order to better represent the complexity of

movement's quality of the teacher. Index 1 simply explains space-time relation with adjectives. Index 2 includes also the "Flow" criterion. Its standards are called with the name of three contemporary dance styles; these styles roughly represent the three characteristics crossed in this index (so, "Space", "Time", and "Flow"). The last one, index 3, includes also the last movement's criterion, the "Action". Standards here were called respecting the creators of contemporary dance techniques of index 2. Although the name of them was chosen symbolically, they represent in a quite good way the intersections of movements' criteria. As result, even if the third index has the same level of complexity, the other two can add more information about that result. This information were precious for the definition of styles. The consideration of all the aspects of movement analysis is an important issue if researchers want to explore teaching as a performance or as choreography. Although these types of analysis could seem too analytic and disconnected from the qualitative interpretation of teaching style, they cannot be avoided. A strong basis for any interpretation is needed. In this case, even if time information is gathered anyway, those are not useful for the specific purposes of this research. Lessons observed were different in nature, then the time teachers spent within didactic categories was not a key information for teaching style definition and comparison. Researchers must pay attention to gather the majority of data they are able to gather, but they should consider only data really useful for their research aims. In this case, choices made are based on the feasibility and replicability of instruments and methods. It was necessary to think about which information could be useful for the development of teachers professional identity and what kind of data could really contribute to deepen the understanding of the role of body in professional practices. In this sense, although a choreographic style is characterised also by the dramaturgy of different phases, this information was not only complex to be represented in one graph (in fact, all the didactic categories can appear more than one time during a lesson, thus the graph could result illegible), but also useless for a constructive comparison among teachers and for their reflection on their choreographic style. Again, the assumption is that it is not the temporal sequence of all didactic categories that really count, but their

quality and specificity in terms of movement and bodily expressions. The instrument created answer to the questions:

- Which didactic category was used in this particular lesson? – information that allow to identify the nature of the lesson observed;
- Who is the teacher represented? – the graph provide information of discipline (provided by the colour), student grade and context (provided by the code);
- How do this teacher move during the lesson? – the intensity of colour represents the standards of the three indexes.

Data analysis for this study was explorative in nature. The ANOVA analysis to explore the correlation between the main index calculated and the variables of gender, subject matter, and experience in arts shows few significant results. The only two significant results were the correlation between the index of movement's quality[1] and the gender variable within the "Discussion" category (Sig.= .016), and the correlation between the main index and the subject matter within the "Assessment" category (Sig.= .000). The Discussion, as intended in the research (i.e. a free discussion between teacher and students about a topic and/or an issue) seems to be characterised by different qualities of movement among male and female teachers. Although a correlation does not mean an implication and a cause-effect relation, this result could represent an important issue to be further explored in follow-up steps of this study. Equally, the significant correlation found for the relation between the main index and subject matter within the Assessment category can suggest that different disciplines can use different assessment processes and/or approaches. This is another important suggestion (in this case) in the field of educational assessment as a comparison in terms of movement (i.e. in a follow-up) among scientific and humanistic disciplines that could provide further and new perspectives for the study of assessment or simply confirm and validate specific theories using a different point of view (Pentassuglia, 2016b).

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[1] In order to perform this correlation data of the three indexes identified (see. Ch. 4, Fig. 2) have been merged in one main factor; in order to avoid the lost of information this main factor was calculated through a weighted average in which the first index was the weightiest.

Thus, these statistical analyses provided a useful summary of data gathered, obviously they are not enough to make generalisations about something as this was not the aim of the present research (the whole sample is only composed by 30 teachers). Rather, what is important to highlight is how the instrument created can provide more useful information linked to the aim of this project. It must be considered that each lesson observed was analyses second by second with the Labanotation coding system and each of them has no less than 350 sequences of movements codified[2]. All these information are not well represented in an ANOVA analysis also because statistical techniques need a greater sample to work well. In fact, a deeper analysis and comparison of the graphs that represent all the 30 teaching styles was more useful and significant. First of all, observing the graphs that were included in the significant correlations obtained with ANOVA analysis we can se, for example, with reference of differences in the Assessment phase, that math teachers use a simpler combination of movement's quality rather than teachers within the language axis. This is exactly an example of how these types of analysis and this instrument can concretely add something to the investigation of body movement. We did not have this information with statistical analysis. Certainly, a follow-up interviews could further explore the reasons of these differences, but what is important to highlight is the insight that this result can provides for the development of new questions of teaching practice pertinent with a performance analysis.

Another important result obtained with the observation and reflection of these graphs is the one related to the experience of teachers. ANOVA analysis showed no correlations of the main index and the previous experiences of teachers in the field of arts. This was an unexpected result inasmuch the assumption was that experiences in arts and, specifically, in performing arts can affect the way teachers move in the classroom. Although this kind of result obtained, from statistical analysis, the observation and reflection of teachers' graphs provided (again) different suggestions. In fact, observing the graphs it can be possible to see that teachers with experiences in performing arts have a more constant "flow" in terms

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[2] One sequence of movement correspond to eight seconds of Labanotation coding as the candidate chosen to create staffs composed by eight beats each (each beat has a duration of one second).

of movement complexity. In other words, they follow a coherent dramaturgy that starts with simpler movement during the Warm-up phase and then follow a more complex scheme that remain constant during all the rest of the lesson. Conversely, teachers with no experiences in performing arts tend to have a different articulation of the lesson in terms of movement's complexity. They often change many times the way they move during the lesson and do not keep a constant dynamic during the development of the lesson. The feeling is that on the one hand they clearly differentiate the phases during the lesson; on the other hand, they do not follow a linear dramaturgy, then their lesson seems more blend than others. These aspects were hidden by statistical analysis, but are quite clear in the interpretation and observation of graphs created.

As a first attempt to systematically explore a research path able to capture both didactic and bodily aspects of teachers' work, there could be identified some limits that should be taken into account for further developments. First of all, teachers involved in the research were observed just one time each. Since the research protocol provided the use of videotaping with the presence of the researcher during the observation, this circumstance could had an effect on teacher's management of her/his class. The candidate was aware of that during the interpretation of data. Due to the necessity of videotapes (needed for the Labanotation) the recruitment of teachers was voluntary-based; this naturally entailed that teachers observed were also teachers with more self-confidence in this kind of situations. Furthermore, even if environments, traits, and bodily way of manage the practice can influence movements, they are deeply internalised and then in a large session of observation they will also showed anyway (Alford, Beck, 1998; Wright, Thase, Beck, Ludgate, 2003; Beck, Haigh, 2014). Besides, the Laban analysis of movement and the adaptation done in this research project did not provide an analytic, minimal, and behaviouristic analysis of all body movements, but it tried to use qualitative indicators that represent macro qualities of human movement. Some studies in Cognitive psychology and psychotherapy confirm these suggestions. The "true self" argued by Winnicott is defined as «the inherited potential which is experiencing a continuity of being and acquiring in its own way and its own speed a personal psychic reality and a personal body

scheme» (1960: 46). Furthermore, «if we are to provide a theory for the true self, I think it is important to stress how this core self is the unique presence of being that each of us is: the idiom of our personality» (Bollas, 1989: 9).

The project ends (for the specific aim of doctoral programme) with the creation of a research path and an instrument able to represent teaching styles both from a didactic and bodily/performative point of views. Further research paths can provide on the one hand the return of data analysis to teachers (i.e. follow-up research processes) in order to validate and deeper explore the interpretation of body movements connected to their didactic activities; on the other hand it can be further explored the effectiveness of this instrument in teacher education as well as in the teachers' self-reflection about their own practice. As stated above the graph created shows many information about teaching practice and it can represent a new starting point for a deeper reflection on teaching practice that has the aim of studying the role of body.

In the definition of aims and research questions this Doctoral thesis has the purpose to give a significant contribution in the field of educational research developing an innovative and new research path and instrument that can really be able to explore teacher's choreographic styles and performance. As result of literature review on the concept of practice there was a gap in educational research and studies of teaching that deeply explore and describe daily and professional practice, but through instruments and methods that cannot really understand the main actor of those practices: the body. Although, there are many studies on body and professional practices, very few are educational research works that concretely consider a systematic analysis of the body.

The two choreographic styles identified can provide several insights for teacher education paths. For example, all the research projects that want to investigate professional practices can start the reflection having a concrete instrument that represents them in a detailed way. Educational research has now a methodological approach and a tool able to support discourses and argumentations that in the last decades consider teaching practice as more than a mere activity. Moreover, further research studies can validate and explore several correlations

between different way of moving in the classroom and, for example, teacher's efficacy as well as students' learning outcomes.

Implications of this research project can be found on different levels. In fact, as suggested, developments for teacher and students can be investigate using the point of view of dance and body. This transdisciplinary research path could provide a significant staring point in this sense.

One of the concrete implications of this Doctoral research project is showed in Chapter 5 with the research project carried out by the candidate at the University of Sunderland[3] (working paper). In fact, in this case, the theory of Laban was used in order to explore the body practice during lessons of 12 university lecturers. Specifically, the focus was on feedback practice. The exploration of the body during feedback has been done following two steps. The first one provided field observation during the class. Specifically, the observation of movements followed principles and guidelines of Laban Movement Analysis (LMA). Thus, special attention has paid on four aspects: the space, the time, the weight, and the flow. In order to adapt Laban's principles to the context of reference of this project, their interpretation have been contextualised. The second step was aimed to a deep understanding of what are teachers' beliefs, perceptions, and understandings of feedback and how these correlate with data gathered from the observations. Thanks to this approach assessment theories on the use of feedback were in part confirmed and new aspects of their practice were highlighted. For example, the two main issues raised at the end of this research path concerned the coherence between teachers' perceptions on feedback and their body practice during the lessons as well as their use of balance between voice and body movements while providing feedback.

This application of the methodological approach created allows to better understanding the different uses of this approach for educational researcher. Further and deeper explorations of these research paths are needed especially in Italy where this field is not deeply explored yet.

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[3] Period of stay founded by Cooperint International exchange programme provided by the University of Verona,.

The last further development that this Doctoral thesis suggests is the implication in term of data representation. As explored in Chapters 1 and 2, the works of M.B. Cancienne (2008) and colleague (Cancienne, Bagley, 2008; Bagley, Cancienne, 2002) provide several suggestions about the use of "performance translation" of written works as a way to involve a wider audience in the research world and advances.

In conclusion, in order to directly respond to the Research Questions highlighted at the beginning of this paragraph:

- Art and specifically dance concretely helped to understand and explore bodily practices of teachers' work;
- Thanks to the TECST instrument developed through this doctoral research it is now possible to directly link teachers body movement with their pedagogical aspects of teaching;
- In this way it was possible to identify two teaching choreographic style that include not only information about instructional aspects, but also their quality of body movement;

7. Conclusions

As interdisciplinary in nature, this thesis used different approaches and frameworks in order to obtain a new perspective for the study of body in teaching practice. The connection among the four literatures traditions explored in the first chapter allowed creating a basis on which it was possible to carry on the research project.

The main aim of the present project was to explore, identify, define, and apply a new methodological approach for the study of teachers practice. Thus, the project does not intended to generalise and obtain significant correlations among variables explored. Indeed, what is important to highlight was is the development of a new research path and, specifically, a research instrument that can show at the same time many information. Although, quantitative and statistic-based research designs were often chosen in order to generalise and define implications in terms of cause-effect consequences, researchers should carefully reflect on what can significantly support the development within the academic sector. As a result of the gap of educational research methodologies for the study of embodied practices, this research project focused on methodological aspects. For this reason, in this case, data gathered can be seen as (relatively) less important than instruments and methods. In fact, most of the implications highlighted in the Discussion considered research paths that can gather crucial data on teachers' work thanks to the instruments and method developed. An example is represented

by the research project carried on at the University of Sunderland during a period of almost three months.

The development of TECST, in fact, can represent the teacher's style including both didactic activity and body language. In this sense, it becomes possible to explore teaching as s performance and reflect on it in front of the evidences. In fact, this instrument allows observing didactic activities as well as the body language and movements performed. As a consequence, one single TECST is able to help and support the reflection on teaching considering all the aspects.

The huge work of integration, comparison, and connection in relation to different fields and theoretical frameworks (also exemplified by the double SSD[16] of the present Doctoral thesis) highlights the need inside academic research to foster the communication between each other in order to go out from our own courtyard and allow a novel scientific development with a significant impact on the society.

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[16] Discipline scientific field (settore scientifico disciplinare).

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Appendix – Extract of Labanotation (about 4 minutes of one teacher)

The Labanotation coding system is based on a functional-analytic approach for the observation of body movement. A physical-mathematic perspective allows the analysis of movement based on four criteria: body, space, time, and effort. «As in a musical score, the staff is divided into tempo and the number of beats per measure. One or more staves can be arranged into a Score, each staff representing the motion of an individual dancer» (Wilke, Calvert, Ryman, & Fox, 2005, p. 202). The central axis of the staff divides the body into two parts: left and right. The coding has to be read from bottom to the top. The rectangle is the basic symbol in the notation (Figure 1) and it represents the three levels in terms of space direction of body movement: black (low level), white with a point to the centre (middle level) and transversal lines (tall level). The length of the symbol along the staff indicates the time of movement. Based on the position into the staff, the symbol refers to specific part of body (Figure 2).

Fig. 1 – Labanotation basic symbol
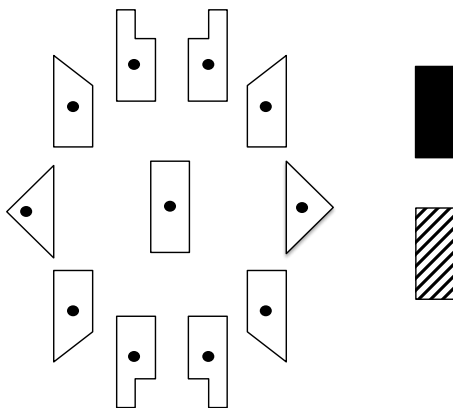
Fig. 2 – Labanotation support