

*Íris Susana Pires Pereira*  
*Flávia Vieira*

Research Centre in Education (CIEd), Institute of Education,  
University of Minho, Portugal

# 7 The Critical Role of Writing in Inquiry-Based Pre-Service Teacher Education

---

## Abstract

This chapter presents an exploratory case study based on an inductive content analysis of a practicum report produced by a student teacher within a Master Degree in Teaching. The report is based on an action research project conducted in a class of primary school children to enhance a constructivist approach to reading for learning. The analysis aimed at understanding the critical role of writing in inquiry-based professional learning processes by looking at the student teacher's reflective discourse. A total of 141 segments were identified, accounting for the presence of 17 professional learning dimensions related with the conceptualisation of the action research project, knowledge about action research, project development, and theorisation/ evaluating of action. Results suggest that action research and report writing are interconnected processes of learning from and about the pedagogical-research game, whereby novice teachers build their identity as pro-active educators. Even though our study is local and exploratory, it contributes to understanding the role of professional literacy practices in enhancing and documenting inquiry-based professional development processes.

**Key words:** Pre-service teacher education, practicum, inquiry-based teaching, report writing, professional learning.

## INTRODUCTION

Pre-service teacher education has been a field of continuous inquiry, debate and controversy in regards to its rationales and practices (Borges & Aquino, 2014; Cochran-Smith & Fries, 2008; Darling-Hammond & Lieberman, 2012; Flores, 2014; Flores & Al-Barwani, 2016; Zeichner & Conklin, 2008; Wilson, Floden & Ferrini-Mundy, 2001). Ultimately, choices concerning the *what*, *how* and *what for* of teacher education programs draw on ideological understandings of education, schooling, and teacher professionalism. A critical issue in this respect is whether prospective teachers should learn to challenge and transform established teaching cultures or internalise and conform to them. In-between these opposite views, a myriad of possibilities exists for teacher education programs to reconcile pre-existing regimes with a drive to innovate based on critical inquiry, the question being the nature and goals of inquiry, and whether it is embraced by training institutions and schools (see Vaughan & Burnaford, 2016).

We believe that transformative teacher education can be enhanced through inquiry-based teaching that allows prospective teachers to build a democratic and humanistic view of education and develop as (self-)critical professionals while working in contexts where a paradigm of transmission prevails. Given the historical and structural constraints to teaching, educational change takes place in the interspace between reality and ideals and is thus understood as a re(ide)-alistic phenomenon (Jiménez Ray, Lamb & Vieira, 2007). From this perspective, ideals of transformation and empowerment in pre-service teacher education are mediated by school and university contexts, and can only be understood with reference to frameworks underpinning teacher development, which determine both the value and the shortcomings of what gets to be done. Furthermore, professional learning also depends on teachers' commitment and ability to undertake inner transformations by assuming a critical stance towards their selves as educators.

Our focus in this chapter is on whether trainees' involvement in reflective practice through action research during their practicum generates transformative professional learning as evidenced in final practicum reports, assuming that action research and narrative writing can be seen as interconnected processes of learning *from* and *about* the pedagogical-research game, whereby novice teachers are expected to build their identity as pro-active educators. We start by presenting a framework for understanding the role of inquiry and writing in teacher learn-

ing, and then present an exploratory case study of a practicum report produced by a student teacher within a Master Degree in Teaching that prepares pre-school and primary teachers at our university, which aimed at understanding the critical role of writing in inquiry-based professional learning processes.

## **A FRAMEWORK FOR UNDERSTANDING THE ROLE OF INQUIRY AND WRITING IN TEACHER LEARNING**

Inquiry-based teaching and professional literacy practices can be understood as two main components of reflective teacher education pedagogies. In the sections that follow we explore this argument by presenting its theoretical rationale.

### **Teachers as reflective practitioners: promoting teaching as inquiry**

Current assumptions about teachers as reflective practitioners are sustained by ideas regarding the role of experience in learning (Dewey, 1916, 1938). From an experiential perspective, professional development and pedagogical renewal do not result from applying external theory to practice. Even though theories can be “appropriated in the cause of educational change” (Carr, 2006, p. 155), the most powerful driving force for self-monitored, conscious, and conscientious *doing* and lifelong professional *learning* is the professional disposition to reflect on and transform practice (Cochran-Smith & Lytle, 1993; Hatton & Smith, 1995; Marcos, Miguel, & Tillema, 2009).

Conceptions of teachers as reflective practitioners require teacher education programs to surpass a theory-to-practice rationale based on a positivistic epistemology often characterised as ‘instrumental rationalism’, according to which teachers are technicians and implementers of pre-designed programs rather than critical intellectuals, curriculum developers, and agents of change. This entails the development of *pedagogies of experience* that enhance a praxeological epistemology, allowing teachers to theorise from practice with a transformative purpose and facilitating the construction of personal theories and practices that are conceptually and ethically sound, locally valid and socially relevant (Vieira, 2009, 2010). In the context of pre-service teacher education, field experiences should

then promote inquiry-based teaching and become what Zeichner (2010) calls a 'third space', where the hegemony of academic knowledge is replaced by a combination of different kinds of knowing and where participants inquire into practice and negotiate understandings to better respond to the challenges of teaching and learning in schools.

Action research has long been advocated and explored to promote a praxeological epistemology through cycles of action-reflection in teacher education settings, even though inquiry processes and their impact on teacher growth will depend on "the underpinning epistemology of the action research model being employed – whether, for example, the goal is for teachers to become more effective or efficient or empowered" (Leitch & Day, 2000, p. 183). According to Vaughan and Burnaford's review (2016), action research has been used in graduate teacher education programs with three different, possibly combined, goals: action research as reflective practice; action research as participatory, critical inquiry; and action research as teacher leadership to effect change in schools and communities. In our work as practicum supervisors, it is mostly understood as reflective practice through critical inquiry within a humanistic and democratic view of education, with the purpose of enhancing student teachers' understanding of education and engagement in small-scale experimentation of learner-centred pedagogies, whose fundamental goal is to explore a teaching rationale based on expanding students' voice, participation and involvement in meaningful learning. Even though trainees' action research projects are primarily focused on the classroom and the enactment of teacher and student learning, they also entail a reflection on the ethical and political underpinnings of teaching with an emancipatory purpose, in the sense that student teachers as researchers "become aware of the values that drive their work so that they may be clear about what they are doing and why. Through such processes, teachers as researchers construct their own 'living educational theory'" (Leitch & Day, 2000, p. 185). Nevertheless, the transformative potential of trainees' projects depends on the support they get from their supervisors. Dialogic supervision based on collaborative reflection and inquiry (Waite, 1995) is of paramount importance, especially in school contexts where constraints to inquiry and innovation reduce opportunities for change. Exploring change through reflective inquiry is thus moving towards 'a culture of possibility' (Vieira & Moreira, 2008).

An important component of action research is the production of narrative accounts of experience where teacher researchers interpret their story of pedagogical inquiry, assume positions supported by experience and the personal

appropriation of public theories, use those theories to interrogate and illuminate practice, give voice to research participants, present sound arguments in favour of more democratic education, and use language creatively with a dialogic orientation towards potential readers (Vieira, 2014, 2015). Literacy practices thus become a crucial concern in inquiry-based teacher learning.

### **Enhancing professional literacy practices: the case of writing**

Language practices play an important complementary role in current understandings of pre-service teachers' learning processes. Sociocultural views have acknowledged the fundamental role of language in social learning, assuming that cognition develops as a result of social practices of communication and is community-generated, community-maintained and maintaining (Bruffee, 1986; Wertsch, 1991). The culturally situated, specialised nature of language in discourse communities requires their members to learn and make use of each community's specific and historically edified 'ways with words' (Bakhtin, 1986; Gee, 1992; Heath, 1983), and from this perspective, concepts, ideas, theories, the world, reality, and facts "are all language constructs generated by knowledge communities" (Bruffee, 1986, p. 777). Reflective learning has been characterized as teachers' specialized form of cognition (Bazerman, 2009; Pereira, 2014), constructed within (and with the active engagement of) their professional community, which provides them with the necessary social scaffolding for the learning to take place. Literacy practices in pre-service teacher education, especially writing practices, have received a particular interest, which has been influenced by developments in writing to learn and genre theories.

According to writing to learn theories, writing adds to the role played by oral language by rendering thinking tangible, thus providing a means of deepening understandings constructed through experience and making the objects of our thinking analysable and liable to be shared and validated by others (Britton, 1970; Eisner, 1987). Writing about experience allows thinking about thinking, and this metacognitive dimension of writing has a powerful heuristic force, opening up possibilities for rethinking what is known, uncovering the unknown, and (re)constructing future experience (Eisner, 2006; Marcos, Miguel & Tillema, 2009; van Manen, 1989, 1990, 2006). The relation between writing and praxis can also be understood from the perspective of speech acts theory (Austin, 1962), whose central thesis is that language is used to do other acts besides representing

the world. Assuming the premise that *to say is literally to do* (Reyes, 1995, p. 31), Pereira (2014) argues that enouncing learning (constructed in practice) is also constructing learning, and therefore teachers' reflective linguistic acts *perform* the (inner) development of their practical knowledge. Seen from this perspective, reflective writing enables writers to consciously act upon their own specialised professional cognition.

Genre theories have also contributed to understand the role of language as tool for social cognition. A genre is a culturally edified, prototypical mode of using language that is generated by the social context in which it becomes necessary for the enactment of specific social purposes (Bahktin, 1986; Halliday & Martin, 1993; Wertsch, 1991, 1998). Bazerman (2009) conceives of the process of being socialised into the various human activity systems (disciplines, professions, and communities) as "cognitive apprenticeship" (p. 290), viewing the various genres as crucial tools for moulding the situated (and socially expected) forms of cognition. Once one internalises a genre, "one learns to think and act as a member of one's profession or discipline" (p. 289), as expected. Seen through this lens, genres link minds to the sociocultural, historical, and institutional contexts in which they are situated (Wertsch, 1991, 1998).

A vast number of situated writing practices have emerged in pre-service teacher education programs, most of which assuming a narrative-like character (Clandinin & Rosiek, 2007; Darling, 2001; Doecke, 2013; Vieira, 2010), allowing prospective teachers to tell their stories of practice and make sense of them, thus developing a specialised reflective cognition through practical epistemology and building their professional identity within their community of practice. Narrative-like genres can mediate, structure and give meaning to the lived experiences that teachers reflect about. Rosen (1987, p. 12) observes that making stories is "a product of the predisposition of human mind to narrativize experience and to transform it into findings which as social beings we may share and compare with those of others". Connelly and Clandinin (1990, p. 4) reinforce this idea by saying that "people are both living their stories in an ongoing experiential text and telling their stories in words as they reflect upon life and explain themselves to others". Narrative inquiry can enable teachers to strengthen their own situated reflective learning, practice, and professional identities in an authentic manner, scaffolding them to be fully responsive to their teaching reality. It opens up the possibility to develop a *standpoint* (a reflected meaning) from *within* the world in which they live as a way of empowering them to transform that world (Doecke, 2013). Furthermore, communicating/ sharing narratives of experience within

one's professional community has the potential for stirring the development of the community itself (Pereira & Doecke, 2016).

Our study relates to a specific type of teacher narrative writing that has been the focus of relatively few discussions in pre-service teacher education (cf. Lawson, Çakmak, Gündüz & Busher, 2015): the practicum report. In our context, it emerged with the practicum model briefly presented below, which resulted from recent forms undertaken within the Bologna Process.

## THE STUDY – CONTEXT AND METHOD

### The context

The study involved the analysis of the practicum report produced by Helena Costa (2013), a student teacher who was supervised by the first author in the second year of a Master in Pre-School and Primary School Education at the University of Minho.

Qualification for teaching in Portugal is obtained through Masters in Teaching created in 2007/08 within the reform of higher education programs resulting from the Bologna Process. The programs usually have 4 semesters (120 ECTS) and integrate courses in content knowledge, general education, and subject-specific didactics. About one third of the total credits is allocated to a school-based practicum, supervised by school cooperating teachers and faculty supervisors. The student teachers must produce a final practicum report that is discussed in a public viva and determines part of their final assessment.

The current legislation does not impose any practicum model. However, it indicates educational research as a cross-disciplinary training component and many institutions introduced research into the practicum. This was the case of our university, where the reform was seen as an opportunity to expand a reflective approach by exploring the research-teaching nexus and enhancing a praxeological epistemology (Carr, 2007; Schön, 1987), contrary to previous nation-wide dominant models that relied more on a positivistic theory-to-practice understanding of teacher preparation and appeared to promote conformity rather than transformation (Canário, 2002; Formosinho, 2009). The new practicum model is based on humanistic and democratic values, and student teachers are strongly encouraged to become reflective practitioners through classroom-based inquiry.

In field sites, they develop a supervised project that must be context-sensitive and learner-centred, within a view of professionalism based on reflectivity, self-direction, collaboration, creativity, and innovation.

Project design takes place in the beginning of the practicum and involves the analysis of the school setting, the formal syllabus, recommended textbooks, and local teaching plans, as well as observation of the cooperating teacher's classes and a diagnosis of students' learning needs. Project proposals integrate an action plan designed in accordance to pedagogical and research goals. The projects are implemented in one of the cooperating teacher's classes, supervised through lesson observation and supervision conferences, documented in reflective portfolios and other reflective texts, and later described and discussed in the report to be defended publicly. Guidelines are provided for project design and development, as well as for portfolio and report writing. Writing from experience in project portfolios and reports is intended to foster critical thinking and the theorisation of practice through the integration of experience, theory, and practical wisdom (Lunenberg & Korthagen, 2009). Local studies on the impact of the new model show that it faces some resistance and constraints, but it also enhances reflective practice towards learner-centred teaching (Flores, Vieira, Silva & Almeida, 2016).

Helena's report, entitled "*Initiating children in active processes of knowledge construction: Reading for learning in situated, collaborative and self-regulated learning contexts*" (Costa, 2013)<sup>1</sup>, was defended in December 2013. It was very positively assessed by the examining board and we chose it for analysis as a potentially good example of the interconnection between inquiry and writing. The report describes and interprets an action research project on enhancing a constructivist approach to reading for learning, developed with a class of 25 primary school children in a period of 15 weeks, from October 2012 to January 2013<sup>2</sup>. The student teacher focused on developing cognitive and metacognitive reading strategies to support the development of reading as a tool for building knowledge related to topics of the Social Studies curriculum. Children's reflection on learning, experimentation of learning strategies, cooperative learning and self-evaluation were part of her approach.

Her research objectives were stated in terms of evaluating: (a) children's initial knowledge about the topics and their conceptions about how knowledge is built

<sup>1</sup> Practicum reports are made available at the university *repositorium* (<http://repositorium.sdum.uminho.pt/>)

<sup>2</sup> The practicum lasts for 2 semesters, the first one in kindergarten settings and the second one in a primary school. Helena's project refers to the second semester.

and consolidated; (b) the impact of pedagogical action aimed at using reading as a learning tool for building knowledge; (c) the impact of the pedagogical intervention in children's metacognitive knowledge about the contents, the processes of building knowledge and the role of reading competences in those processes; and (d) the impact of publishing an informative text in a local paper on the children's motivation regarding the construction of learning. Reflection on practice was based on a set of procedures with pedagogical and research purposes: an initial oral questionnaire, reading tasks, learner self-assessment, on-going dialogue with children, analysis of recorded and transcribed lesson episodes, photographs taken during tasks, and a teaching journal (cf. Costa, 2013, p. 45).

## Method

With the purpose of investigating the critical role of writing in inquiry-based teaching, we analysed Helena's report, whose body text is much longer than usual (52500 words, not counting introductory pages, references, and appendices)<sup>3</sup>. Its structure follows the general guidelines provided for report writing: introduction, context of project development, theoretical rationale, intervention plan, analytical description and evaluation of project implementation, overall appraisal of the intervention (conclusions, limitations, and recommendations), bibliographic references, and appendices (with examples of didactic and data collection instruments).

We carried out an extensive reading of the report to identify appraisal segments, that are segments which present the student teacher's voice – personal meanings, interpretations, evaluations, and judgements regarding the practicum experience. We therefore excluded descriptive theoretical and practical accounts, not because they are not important but because we wanted to look at discourse that evidenced *processes of knowledge construction through reflection and inquiry*. We identified 141 relevant discourse segments of variable length (a total of around 17000 words) and conducted an inductive content analysis by inferring a dimension of professional learning for each segment through answering the following question: what does it say about what the student teacher learnt? We used a descriptive table to register our analysis (see example in Figure 1)<sup>4</sup>, which

<sup>3</sup> Guidelines for report writing indicate 20000-25000 words (body text).

<sup>4</sup> In the table and throughout the following section, excerpts from the student teacher's report were translated into English. The references in the excerpts are not included in the final references.

allowed us to identify 17 dimensions of professional learning, and also their frequency of occurrence.

**Figure 1. Example of inductive content analysis**

<i>Dimensions of professional learning</i>	<i>Relevant discourse segments in report</i>	<i>Location in report: section, page</i>
Acknowledging the role of the project for understanding processes of learner autonomy development and for constructing the teacher's professional identity	In research terms, the project allowed me to build an understanding of the impact of initiating children to the construction of autonomy based on reading as an active tool for building knowledge in meaningful contexts. This investment in research had a very significant impact upon the construction of my professional identity.	Abstract, p.iv

## FINDINGS

Identifying the dimensions of professional learning in practicum reports allowed us to get an overview of the learning outcomes of inquiry-based teaching and the role of writing in making sense of experience and communicating it to others. Four macro-dimensions of professional learning emerged in the analysis, referring to main components of project development. The distribution of the 141 discourse segments within those four macro-dimensions is as follows:

- (1) Conceiving the Action Research Project (f = 10/ 7.1%)
- (2) Understanding the Nature of Action Research (f = 17/12.1%)
- (3) Developing the Pedagogical Intervention (f = 49/ 34.7%)
- (4) Theorising and Evaluating the Pedagogical Intervention and the Project (f = 65/46.1%)

In each macro-dimension, we identified specific learning dimensions, in a total of 17.

In the sections below we will focus on the four macro-dimensions by identifying the corresponding sub-dimensions and illustrating some of them with segments from Helena's report.

## Conceiving the action research project

Project design is an important stage in the practicum. This is made clear in Helena's report, where 4 learning dimensions refer to project design processes as indicated in Table 1<sup>5</sup>, highlighting her ability to present and justify a coherent project that articulates teaching and research purposes referring to contextual and theoretical knowledge, aiming at enhancing a socio-constructivist approach to reading for learning.

**Table 1. Conceiving the action research project: project design**

<i>Professional learning dimensions</i>	f
Articulating key components of the AR project (phases, learning tasks, educational and research purposes)	1
Articulating the identification of learner difficulties, the specialised literature and curriculum guidelines in the conceptualization of the teaching strategy to explore in the AR project	1
Being aware of the role of theory in project design and of the complexity of articulating theory and practice	1
Explicating the socio-constructivist orientation that informs the pedagogic options in the project	7
<i>Total</i>	<i>10</i>

Right from the start Helena assumes a constructivist view of learning that informs her choices and practice as an alternative to more traditional approaches:

*(...) I felt it was imperative that I built situated learning contexts allowing for the experimentation of new ways of constructing knowledge, thus contributing to deconstruct the idea, possibly 'established' among the students, that access to knowledge resided 'statically' in the teacher or in the textbook. Therefore, according to what is advocated by curriculum development theory (Alonso, 1996), it was my purpose to adopt a pedagogical stance that favoured the emergence of curricular learning in practical, meaningful and authentic environments, as well as to promote the regulation of personal learning processes in those contexts, thus valuing the importance of the on-going development of cross-disci-*

<sup>5</sup> In the tables presented, AR stands for 'action research' and 'f' indicates the frequency of discourse segments in each learning dimension.

*plinary learning to learn competences, from a socio-constructivist perspective.*  
(Excerpt from Segment 5, Report: pp. 4-5)

The following segment documents Helena's pedagogical reasoning behind her decisions about what to do and why, illustrating one of the crucial and most complex aspects of designing action research, indicated in Table 1: articulating the learner difficulties, theoretical input and curriculum guidelines in the conceptualization of pedagogical strategies:

*The role of reading was an essential component of this project, since the act of reading continues to be "the basis of almost all the activities done in school" (Camps & Colomer, 2002, p. 70), that is, reading is a crucial linguistic competence for success in any learning area and for life and professional contexts beyond school. In my class, reading was highly valued as students showed great interest in it, both in the tasks indicated by the teacher and in homework reading assignments. Yet, the dynamics of the observed reading tasks in Social Studies also suggested the need to guide students towards understanding the texts and the value of reading them, since they revealed a lack of reading strategies that might enhance the process of knowledge construction. They showed little autonomy in meaning-making processes and tended to be 'concerned' with decoding words one by one, not being able to draw meaning from a text in an autonomous way. Even though this was expected in students who were 2nd grade beginners, I realised that it would be beneficial to get them involved in a kind of dynamics that fostered active reading strategies and autonomy so that meaning construction, that is, learning, might improve.*

*According to the syllabus for Portuguese in Basic Education (Reis et al., 2009), by the end of the 2nd grade students are expected to be able to "read short texts with some fluency and understand their essential meaning" (p. 22). This project sought to contribute to that goal, taking into account, as Camps and Colomer (2002, p. 90) put it, that "the central role of reading is not to learn to read but rather to read with a clear interest in knowing what the text says for some well defined purpose". In this sense, the project also aimed at helping clarify the idea that reading is a crucial tool for meaning-making (much beyond mastering the language code) and therefore indispensable for building learning and being able to function and become integrated in society. Actually, it was a matter of raising*

*awareness that reading is part of daily actions, that in those actions we learn by reading, and that texts allow access to a vast body of knowledge needed to do things.*

*The period of observation/ context analysis allowed me to detect that problem in the intervention group, which was perhaps due to their life context and possibly to a teaching space marked by a traditional pedagogy of knowledge construction. Situated reading during the intervention also functioned as a context that favoured the expansion and consolidation of vocabulary through the creation of an environment that facilitated the learning of new words related to the new concepts that integrate the natural dynamics involved in knowing the world and the language.*

*The project was based on a specific theme in the Social Studies area for 2nd grade students, which was part of the plan designed by the school supervisor. Our work focused on 'Professions', a theme that integrates the modules on "Ways of living and roles of some society members" within the unit "Towards the discovery of others and institutions". (Segment 6, Report: pp. 5-6)*

## **Understanding the nature of action research**

Explicit research knowledge is often scarce in the student teachers' reports as documented in previous studies undertaken in this context (see Flores *et al.*, 2016), even though reports document the ability to carry out pedagogical inquiry. In the case of Helena, knowledge about action research is quite explicit and informs her choices. Table 2 refers to 5 learning dimensions related to how pedagogical inquiry is understood, integrating reflections about action research as a situated, autonomy-oriented practice that involves particular types of procedures with implications on its meaning and transferability.

Before presenting the pedagogical-research strategies implemented, she reflects about the importance of data collection for the interpretation and evaluation of action, underlining the need to diversify sources/ methods and triangulate evidence and voices. She then presents the strategies used, showing a good understanding of the research-teaching nexus, as in the following segment, where she refers to one of the strategies used – the analysis of children's performance on reading tasks:

**Table 2. Conceiving the action research project: knowledge about action research**

<i>Professional learning dimensions</i>	f
Acknowledging the appropriateness of AR methodology in the analysis and transformation of educational action and its potential to articulate teacher and learner development	4
Understanding the articulation between teaching and research in the AR project	2
Acknowledging the importance of data collection for the interpretation and evaluation of action, and the need to diversify sources/ methods and triangulate evidence and voices	5
Acknowledging the situated nature of educational research	4
Acknowledging the value of peer collaboration in designing articulated, complementary projects (reading and writing) <sup>6</sup>	2
<i>Total</i>	<i>17</i>

*Task development involved a series of materials designed to support teaching and learning. Those materials, mostly worksheets, were aimed at guiding the reading tasks so as to facilitate the organisation and recording of information collected in them, providing me with data to check whether their goal had been attained: learning from reading the texts. (...) I can say that as we did the tasks I realised that the opportunity to collect and analyse data from children's products became a reference for how I should face the development of my practice. Those materials allowed me to observe the outcomes of the children's learning process, assuming that if needed I would have to "redirect the process towards the desired goals" (Alonso, 1996, p. 51). Therefore, it was through data collection that I had the opportunity to check the state of their real learning as compared to expected learning, and define strategies to overcome that distance and transform my practice. (Excerpt of Segment 17, Report: p. 46)*

The way she introduces the chapter where she describes and analyses her intervention illustrates her view of pedagogical inquiry and writing as interrelated processes in a quest for knowledge:

<sup>6</sup> Helena worked in collaboration with another student teacher who explored writing practices in the same context.

*The present chapter aims at reporting the various moments of my pedagogical intervention project. Therefore, data collected will be analysed so as to build an on-going evaluation of the achieved results, with reference to the objectives initially defined. We know that “teachers who are reflective practitioners perform important roles in (...) the production of knowledge about teaching, due to a work of reflection in and on their own experience” (Zeichner, 1993, pp. 10-11). It is this search for knowledge that I intend to carry out as I build this chapter. (Segment 20, Report: p. 50)*

### Developing the pedagogical intervention

Table 3 refers to appraisals directly related to Helena’s teaching, accounting for 34.7% of the segments. The most important inference from her reflections on practice is her concern with children’s engagement in the process of knowledge construction, present in a total of 45 segments (3 referring to the introductory phase of the project and 42 to its development phase).

**Table 3. Developing the pedagogical intervention**

<i>Professional learning dimensions</i>	<i>f</i>
Valuing learner engagement in the introduction of the project in class (introductory phase of the AR project)	4
Valuing learner engagement in the process of knowledge construction (introductory and development phases of the AR project)	45
<i>Total</i>	<i>49</i>

Learner engagement in the construction of knowledge is a basic tenet of the constructivist approach she advocates and seeks to explore, and it is present in the type of learning activities she describes and interprets. The following segment illustrates her concern with recalling previous knowledge and promoting metacognitive awareness:

*As pointed out by authors like Camps and Colomer (2002), it is crucial that at any point in learning the teacher knows, values and understands “her/his students’ ideas regarding what s/he intends to teach, in order to find out if they have enough conceptual support to incorporate new knowledge, and try to*

*understand their learning procedures (...)" (p. 63). Therefore, the initial stage of the project aimed at 'putting the students' knowledge on the move', giving them the opportunity to make their knowledge about each one of the selected professions explicit, and understand the relevance of the reading exercise for revising or confirming previous ideas. Not ignoring or undervaluing the existence of that knowledge was seen as an essential condition to reach a better learning outcome during the activity. Moreover, this methodological stance aims at helping students understand that they are the main agents in building their own knowledge, and that knowledge builds on what we already know. So, students should be supported to activate and become more aware of their initial knowledge so that later they might actively confront those collected ideas with what they had learnt as student-readers. (Segment 34, Report: pp. 63-64)*

Helena developed many activities where the children experimented with and reflected upon reading strategies. She further promoted cooperative learning, trying to counteract children's overdependence on the teacher. In the segment that follows she presents an excerpt from her teaching journal to illustrate dilemmas regarding the promotion of autonomy and the teacher's role as a mediator of learning:

*I must confess (...) I felt that this moment of [solving] the worksheet [in groups] did not go as I expected. These children have been exposed to reading practices where they are totally dependent on the teacher and participate passively by just following the teacher' or a colleague's oral reading and answering comprehension questions. When I planned this lesson, I knew there was a clear change in reading dynamics, but I thought that task appropriation would be quicker. I felt at the time that more reading mediation for each text was lacking since students had so many difficulties in identifying relevant information to fill in the given table. However, I am aware that, in a way, it was somehow complicated to do that because each group had two different texts, in a total of eight texts in class, and to explore them in detail would not be productive in the time available. On the other hand, I believe that it was important to put children in an active position towards the texts, having the opportunity to read and understand them with some degree of independence from the teacher, so as to build knowledge autonomously, of course with my mediation in supporting them with emerging difficulties, yet without influencing the construction of their own learning. (Segment 38, Report: pp. 70-71)*

## Theorising and evaluating the pedagogical intervention and the project

Action research allows teachers to build situated knowledge from experience and evaluate its impact upon teacher and learner development. Table 4 signals the importance of theorisation and evaluation in Helena's report, accounting for 46.1% of the reflective segments. Theorising action from collected data with possible future implications is the most important learning dimension here, identified in 49 segments (4 relating to the introductory phase of the project, 39 to its development phase, and 6 to the evaluation phase).

**Table 4. Theorising and evaluating the pedagogical intervention and the project**

<i>Professional learning dimensions</i>	f
Theorising action from collected data with possible future implications (introductory, development and evaluation phase of the AR project)	49
Acknowledging the role of the project for understanding processes of learner autonomy development and for constructing the teacher's professional identity	5
Acknowledging the project impact on future action and the role of report writing in the reconceptualization of conclusions, shortcomings and recommendations	3
Acknowledging shortcomings in the pedagogical-research process	3
Anticipating future actions based on lived experience	3
Valuing the practicum as a scaffolded and co-constructed path (supervisors, cooperating teachers, practicum colleague, children, friends, parents, siblings)	2
<i>Total</i>	65

Helena developed several activities that promoted metacognitive awareness in relation to specific learning tasks. In the segment that follows, she draws on classroom discourse (a transcription of a tape-recorded lesson sequence) as a basis for theorising her practice. This is one of the many instances where one can appreciate the use of classroom data for conceptualising teaching and learning, which is one of the cornerstones of a praxeological epistemology within inquiry-based teaching:

*The dialogue [transcription of a class episode] shows the group's awareness regarding the difficulties they felt in the task; however, it also reveals some*

*appropriation of the meaning of learnt words and, perhaps more importantly, it allows us to see that the group was able to think about the strategies used in vocabulary learning. Therefore, I believe they had the opportunity to expose their discoveries and that the “possibility of talking about words encourages their use, develops understanding not just of words themselves but also of the text content, and promotes a confrontation of perspectives” (Yopp & Yopp, 2008, pp. 157-170). (...) The specific component of developing metacognitive strategies was evident in this task. I believe that asking children to think and talk about how they learnt new words was essential so that the meaning of strategies for searching word meanings did not get lost during the process. In other words, I provided a moment of reflection that raised awareness about what was done in the vocabulary learning context through exercising the self-regulation of learning and of the strategies used. This exercise also consolidated the importance of leading students to greater autonomy in future situations in which they are not familiar with the vocabulary of new reading texts. (Segment 43, Report: pp. 77-78)*

An important quality feature of action research is the triangulation of data for the interpretation and reconstruction of practice. Helena’s report presents many examples of how she did it and how that allowed her to understand shortcomings and evolutions in both teaching and learning. The following example refers to the use of a self-evaluation instrument in three different moments, corresponding to three action research cycles, and how she sees the progress observed in self-evaluation as an innovative practice:

*Considering the analysis of all the questions of the self-evaluation tasks, it was evident that in an initial stage self-evaluation was rather limited in comparison to what had really happened and what had been done. However, throughout the tasks there was an evolution in how the students tackled self-evaluation and also in the way I implemented it. The fact that this was an innovative activity put me and the students in a position of insecurity. Their answers to many of the questions, mostly the first ones, showed some misunderstanding of the task and the collected information was distanced from reality. However, it is important to take into account that the first self-evaluation moment gave me experience on the basis of which I was able to rethink the following self-evaluation moments with a different dynamic that favoured students’ task understanding. Overall, I think that the second moment showed some improvements in how*

*they faced the task and that happened even more in the third moment. I believe that providing more support to the students in self-evaluation, question after question, allowed them to better understand each question and its purpose. This evolution must be considered as an intrinsic feature of action research cycles themselves. Actually, in the second action research cycle I hoped to obtain data that showed evolution from the first cycle, but also structured data that allowed me to plan the path for the following cycle, which in fact happened. (Segment 101, Report: p. 139)*

In an overall evaluation of the project, Helena feels that she learnt from both positive and less successful aspects of her experience, underlining her view of problems as a springboard for learning and the need to engage in continuous learner-centred inquiry. She focuses mainly on problems arising in class and directly related to pedagogical roles and task achievement, rather than on shortcomings regarding action research itself. She mostly feels that the teaching period to develop it (15 weeks) was limited, with implications on the scope of results and her own development. Nevertheless, based on project evaluation she concludes that the intervention had a crucial impact on her and on children, and she intends to go on exploring context-sensitive, learner-centred approaches, realising that her experience was only the beginning of a long journey and that lifelong learning is the main condition for becoming a good professional:

*(...) I am leaving with the certainty of having made an effort to maximise children's learning in the available time, and that, as a consequence of it, I reinforced my own competence in the sense of having experienced "an opportunity to learn how to teach" (Alonso, 1998). Moreover, in my opinion it is desirable to have this feeling of ending this stage fearing that I do not know everything yet, that I still have a long way to go, which will make me grow as a teacher who is permanently concerned with enhancing meaningful learning, that is, developing quality pedagogical work. In a way, I feel that in professional action a teacher must assume the attitude of always wanting to learn more and invest in in-service development. Actually, as a final remark, I came to build the idea that one of the great qualities of being a good teacher is precisely that: being a teacher who does not accommodate her/himself to what s/he knows, developing an awareness that there is still a lot to learn and experiment, and that s/he can always reach further, through commitment, will, dedication and the pleasure of being a teacher, a good teacher. (Segment 139, Report: p. 161)*

## CONCLUSION

The study appears to support our assumption that action research and narrative report writing can be seen as interconnected processes of learning *from* and *about* the pedagogical-research game, whereby novice teachers build their identity as reflective practitioners and pro-active, learning-oriented educators. The analysis of Helena's report accounts for reflective writing as a specialized form of cognition (Bazerman, 2009; Pereira, 2014) that allows her to build insights and understandings from experience as she seeks to make sense of classroom events and data. One can sense an empowering process going on through writing as a metacognitive, heuristic activity (Eisner, 2006; van Manen, 1990) whereby she constructs a personal understanding of experience and inquiries into its educational relevance with reference to constructivist beliefs and aspirations. She shows a continuous effort to interpret her and her students' learning and act upon the practical knowledge resulting from inquiry, which appears to sustain the argument that reflective linguistic acts perform the (inner) development of teachers' practical knowledge (Pereira, 2014). It is worth noting that theoretical input is integrated in her interpretative discourse so as to either justify or illuminate her reasoning and action. Although she clearly subscribes to views of education conveyed in the specialised literature, she also develops her own 'living educational theory' (Leitch & Day, 2000) on the basis of evidence-based reflection on experience. This clearly illustrates Carr's (2006) idea of the role of public theories as inspirational drivers for change rather than prescriptions for it. It is also important to note that the development of her professional identity as a critical intellectual rather than an executor of pre-designed programs (Kincheloe, 2003) does not mean that she ignored the national curriculum, but rather that she interpreted and expanded it in articulation with an autonomy-oriented vision of education and the analysis of contexts of practice, namely the children's learning needs. In fact, Helena's concern with children's engagement in the active construction of knowledge is central in how she designs, conducts and evaluates her project.

Overall, this report is a good example of narrative reflective writing and perhaps we could even hypothesise that it presents features that should incorporate reflective action research reports as a professional genre. Actually, the learning dimensions identified in the study appear to represent a valuable basis for conceptualising this genre as a tool to support learning to think as a reflective practitioner. However, there are issues to be raised regarding this hypothesis which call for further investigation.

The first issue is that inquiry-based teaching can be based on diverse views of education and teacher development (see Leitch & Day, 2000; Vaughan & Burnaford, 2016), therefore one cannot find a single prototypical mode of using reflective language in action research reports. In the case of our practicum model, it is based on a humanistic and democratic rationale and student teachers are expected to use action research for transformative purposes by exploring and inquiring into learner-centred approaches. Nevertheless, student teachers and the faculty and school supervisors do not necessarily share a common understanding of the model. Actually, local studies (see Flores *et al.*, 2016) have shown that there have been tensions regarding the role of inquiry and the nature of reports, which emerge from different conceptions about what learning to teach means and what forms of writing are most appropriate in the academy, and also from the fact the innovative drive of action research projects faces constraints in schools, where inquiry-based teaching is an exception rather than the rule. *What is then the professional discourse community that might sustain and support the report as a professional genre as it emerges in our study?* Even though the relation between discourses and communities of practice is dynamic, some discourse realizations and the practices that give rise to them may be somehow ‘ahead’ of what communities are prepared to accept and validate (see Pereira & Doecke, 2016).

A second issue relates to the potential tension between the idea of genre and teacher empowerment. Should the report as a genre become a socialising tool for moulding situated (and socially expected) forms of cognition (Bazerman, 2009) within the teaching profession? Or should it rather be understood as a learning tool whereby teachers as researchers may interrogate the basis of the profession itself and imagine new realisations of it? It is important to note that pre-service teacher education as we see it, and as documented in this study, is not just a process of induction into the teaching profession *as it is*, but also, and perhaps most importantly, a process of confronting different views of the profession and constructing a professional identity that is open to criticism and change. Only then can we expect reflective inquiry and narrative writing to be empowering as teachers wrestle with the complexities of teaching and make informed decisions with a transformative purpose, constructing personal theories and practices that are conceptually and morally sound, locally valid and socially relevant (Vieira, 2009, 2010). Only then can we expect teachers to truly develop a standpoint from within the world in which they live as a way of empowering them to transform that world (Doecke, 2013), even though transformations are modest. Our student teachers’ projects, like Helena’s, are small-scale and primarily focused on

the classroom. Nevertheless, they entail an interrogation of pre-existing teaching cultures and seek to explore pedagogy that is more dialogical, inclusive and learning-oriented. This is certainly important as our students learn to teach. The question remains: *Can the reflective action research report be conceived as a genre and still allow for teacher empowerment and educational transformation?* This question relates to the first one above, since the empowering potential of the research report as a genre will also depend on the extent to which professional communities value and enhance teacher empowerment.

Even though our study is local and exploratory, we believe it is of potential relevance for understanding the role of professional literacy practices in enhancing and documenting inquiry-based professional development processes. We suggest that it could be replicated with a larger corpus and incorporate interviews to trainees and school/faculty supervisors so as to get a more holistic understanding of what facilitates and hampers inquiry-based teaching and writing. Furthermore, the issues we raise above call for investigation on the status and impact of inquiry-oriented teaching and writing in the professional communities within which teacher education programs operate.

## ACKNOWLEDGEMENTS

This work is funded by CIEd – Research Centre on Education, projects UID/CED/1661/2013 and UID/CED/1661/2016, Institute of Education, University of Minho, through national funds of FCT/MCTES-PT.

## REFERENCES

- Austin, J. (1962). *How to Do Things with Words: The William James Lectures Delivered at Harvard University in 1955*. (ed. J. O. Urmson). Oxford: Clarendon.
- Bakhtin, M.M. (1986). *Speech Genres and Other Late Essays*. Austin, Texas: University of Texas Press.
- Bazerman, C. (2009). Genre and cognitive development: Beyond writing to learn. In C. Bazerman (ed.), *Genre in a Changing World* (pp. 279-294). Parlor Press and WAC Clearinghouse.

- Borges, M.C. & Aquino, O.F. (eds.) (2014). *A Formação Inicial de Professores: Uma Visão Internacional*. [Initial teacher training: An international view] Uberlândia: EDUFU.
- Britton, J.N. (1970). *Language and Learning*. London: Penguin Books.
- Bruffee, K.A. (1986). Social construction, language, and the authority of knowledge: A bibliographical essay. *College English*, 48(8), 773-790.
- Canário, R. (2002). A prática na formação de professores. [Professional practice in teacher education] In B.P. Campos (ed.), *Formação Profissional de Professores no Ensino Superior* [Professional teacher training in higher education] Porto: Porto Editora.
- Carr, W. (2006). Education without theory. *British Journal of Educational Studies*, 54(2), 136-159.
- Carr, W. (2007). Educational research as practical science. *International Journal of Research & Method in Education*, 30(3), 271-286. Available at: <http://www.tandfonline.com/doi/pdf/10.1080/17437270701614774>
- Clandinin, D.J. & Rosiek, J. (2007). Mapping a landscape for narrative inquiry. Borderland spaces and tensions. In D.J. Clandinin (Ed.), *Handbook of Narrative Inquiry Methodologies* (pp. 35-76). Thousand Oaks, CA: Sage.
- Cochran-Smith, M. & Lytle, S.L. (1993). *Inside/Outside Teacher Research and Knowledge*. New York: Teachers College Press.
- Cochran-Smith, M. & Fries, K. (2008). Research on teacher education: Changing times, changing paradigms. In M. Cochran-Smith, S. Feiman-Nemser, D.J. McIntyre, K.E. Demers (Eds.), *Handbook of Research on Teacher Education* (Third Edition; pp. 1050-1093). New York: Routledge.
- Connelly, F.M. & Clandinin, D.J. (1990). Stories of experience and narrative inquiry. *Educational Researcher*, 19(5), 2-14.
- Costa, H.S.G. (2013). *Iniciação das crianças em processos ativos de construção de conhecimento: ler para aprender em contextos de aprendizagem situada, colaborativa e autorregulada* [Initiating children in active processes of knowledge construction: Reading for learning in situated, collaborative and self-regulated learning contexts]. Practicum Report. Braga: Universidade do Minho. Available at: <https://repositorium.sdum.uminho.pt/bitstream/1822/28732/1/Helena%20Sofia%20Gon%C3%A7alves%20Costa.pdf>
- Darling-Hammond, L. & Lieberman, A. (eds.) (2012). *Teacher Education the World. Changing Policies and Practices*. London: Routledge.
- Darling, L.F. (2001). Portfolio as practice: The narratives of emerging teachers. *Teaching and Teacher Education*, 19, 107-121.

- Dewey, J. (1916). *Democracy and Education*. New York: MacMillan Publishing Inc.
- Dewey, J. (1938). *Experience and Education*. New York: Collier Books.
- Doecke, B. (2013). Storytelling and professional learning. *English in Australia*, 48(2), 11-21.
- Eisner, E. (1987). *Procesos cognitivos y curriculum. Una base para decidir lo que hay que enseñar*. Barcelona: Martínez Roca, S.A. [O. Version Cognition and curriculum. A basis for deciding what to teach. Nueva York: Longman Inc., 1982].
- Eisner, E. (2006). *Reimagining Schools. The Selected Works of Elliot W. Eisner*. London: Routledge.
- Flores, M.A. (Ed.). (2014). *Formação e desenvolvimento profissional de professores. Contributos internacionais*. [Training and professional development of teachers. International contributions]. Coimbra: Edições Almedina.
- Flores, M.A. & Al-Barwani, T. (eds.) (2016). *Redefining Teacher Education for the Post-2015 Era: Global Challenges and Best Practice*. New York: Nova Publisher.
- Flores, M.A., Vieira, F., Silva, J.L., Almeida, J. (2016). Integrating research into the practicum: Inquiring into inquiry-based professional development in post-Bologna Initial Teacher Education in Portugal. In M.A. Flores, T. Al-Barwani (Eds.), *Redefining Teacher Education for the post-2015 Era: Global Challenges and Best Practice* (pp. 109-124). New York: Nova Publisher.
- Formosinho, J. (2009). A academização da formação de professores [The academization of teacher training]. In J. Formosinho (Ed.), *Formação de professores. Aprendizagem profissional e Acção Docente* [Teacher training. Professional learning and teacher action] (pp. 73-92). Porto: Porto Editora.
- Gee, J.P. (1992). *The Social Mind: Language, Ideology, and Social Practice*. New York: Bergin & Garvey.
- Halliday, M.A.K. & Martin, J. (1993). *Writing Science. Literacy and Discursive power*. London: The Falmer Press.
- Hatton, N. & Smith, D. (1995). Reflection in teacher education: Towards definition and implementation. *Teaching & Teacher Education*, 11(1), 33-49.
- Heath, S.B. (1983). *Ways with Words: Language, Life, and Work in Communities and Classrooms*. Cambridge, England: Cambridge University Press.
- Jiménez Raya, M., Lamb, T., Vieira, F. (2007). *Pedagogy for Autonomy in Language Education in Europe. Towards a Framework for Learner and Teacher Development*. Dublin: Authentik.
- Kincheloe, J. (2003). *Teachers as Researchers. Qualitative Inquiry as a Path to Empowerment*. London & New York: Routledge Falmer.

- Lawson, T., Çakmak, M., Gündüz, M., Busher, H. (2015). Research on teaching practicum – A systematic review. *European Journal of Teacher Education*, 38(3), 392-407.
- Leitch, R. & Day, C. (2000). Action research and reflective practice: Towards a holistic view. *Educational Action Research*, 8(1), 179-193.
- Lunenberg, M. & Korthagen, F. (2009). Experience, theory, and practical wisdom in teaching and teacher education. *Teachers and Teaching*, 15(2), 225-240. DOI:10.1080/13540600902875316
- Marcos, J.J., Miguel, E.S., Tillema, H. (2009). Teacher reflection on action: What is said (in research) and what is done (in teaching). *Reflective Practice*, 10(2), 191-204.
- Pereira, I.S.P. (2014). Writing and the situated construction of teachers' cognition: Portfolios as complex performative spaces. *Language and Education*. <http://dx.doi.org/10.1080/09500782.2014.908904>
- Pereira, I.S.P. & Doecke, B. (2016). Storytelling for ordinary, practical purposes (Walter Benjamin's 'The Storyteller'). *Pedagogy, Culture and Education* 24(4), 537-549. <http://dx.doi.org/10.1080/14681366.2016.1210200>.
- Reyes, G. (1995). *El Abecé de la Pragmática* [The ABC of pragmatics]. Madrid: Arco Libros.
- Rosen, H. (1987). *Stories and Meanings*. Sheffield: National Association for the Teaching of English.
- Schön, D. (1987). *Educating the Reflective Practitioner*. San Francisco: Jossey-Bass Publishers.
- Van Manen, M. (1989). Pedagogical Text as Method: Phenomenological Research as Writing. *Saybrook Review*, 7(2), 23-45.
- Van Manen, M. (1990). *Researching Lived Experience. Human Science for an Action Sensitive Pedagogy*. SUNY Series, The New York Press.
- Van Manen, M. (2006). Writing qualitatively, or the demands of writing. *Qualitative Health Research*, 16(5), 713-722.
- Vaughan, M., & Burnaford, G. (2016). Action Research in Graduate Teacher Education: A Review of the Literature 2000–2015. *Educational Action Research*, 24(2), 280–299. DOI: 10.1080/09650792.2015.1062408
- Vieira, F. (2009). Para uma pedagogia da experiência na formação pós-graduada de professores [Towards a pedagogy of experience in post-graduate teacher education]. *Indagatio Didactica*, 1(1), 32-75.
- Vieira, F. (2010). Towards teacher and learner autonomy: Exploring a pedagogy of experience in teacher education. *Revista Canaria de Estudios Ingleses*, 61, 13-28.

- Vieira, F. (2014) (Ed.), *Quandoos Professores Investigam a Pedagogiaem Busca de uma EducaçãomaisDemocrática* [When teachers research pedagogy in a quest for a more democratic education]. Mangualde: Pedago.
- Vieira, F. (2015). Entre a reprodução e a transformação – a investigação como prática pedagógica na formação de professores [Between reproduction and transformation – research as pedagogic practice in teacher education]. In M.A. Flores, M.A. Moreira L.R. Oliveira (eds.), *Desafios Curriculares e Pedagógicos na Formação de Professores* (pp. 107-118). Ramada: Pedago.
- Vieira, F. & Moreira, M.A. (2008). Reflective teacher education towards learner autonomy: Moving towards a culture of possibility. In M.J. Raya & T. Lamb (eds.), *Pedagogy for Autonomy in Language Education – Theory, Practice and Teacher Education* (pp. 266–282). Dublin: Authentik.
- Waite, D. (1995). *Rethinking Instructional Supervision – Notes on its Language and Culture*. London: The Falmer Press.
- Wertsch, J.V. (1991). *Voices of the Mind: A Sociocultural Approach to Mediated Action*. Cambridge, MA: Harvard University.
- Wertsch, J.V. (1998). *Mind as Action*. New York: Oxford University Press.
- Wilson, S.M., Floden, R.E. & Ferrini-Mundy, J. (2001). *Teacher Preparation Research: Current Knowledge, Gaps, and Recommendations*. Washington: University of Washington, 2001. Available at: <http://depts.washington.edu/ctpmail/about/study/14.shtml>.
- Zeichner, K. (2010). Repensando as conexões entre a formação na universidade e as experiências de campo na formação de em faculdades e universidades [Rethinking the connections between training at the university and field experiences in teacher education at colleges and universities]. *Educação – Revista do Centro de Educação UFSM*, 5 (3), 479-503.
- Zeichner, K. & Conklin, H.G. (2008). Teacher education programs as sites for teacher preparation. In M. Cochran-Smith, S. Feiman-Nemser, D.J. McIntyre & K.E. Demers (eds.), *Handbook of Research on Teacher Education* (Third Edition; pp. 269-289). New York: Routledge.