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INTEGRATING RESEARCH INTO THE PRACTICUM: INQUIRING INTO INQUIRY-BASED PROFESSIONAL DEVELOPMENT IN POST-BOLOGNA INITIAL TEACHER EDUCATION IN PORTUGAL

*Maria Assunção Flores¹, Flávia Vieira²,
José Luís Coelho da Silva² and Maria Judite Almeida³*

¹Research Centre in Child Studies, University of Minho, Braga, Portugal

²Research Centre in Education, University of Minho, Braga, Portugal

³Research Centre in Molecular and Environmental Biology,
University of Minho, Braga, Portugal

ABSTRACT

One of the critical issues in ITE is the role of research in professional learning. Inquiry-based teacher education has long been advocated, but it is far from representing a common approach and faces various challenges. This chapter discusses the role of inquiry in the practicum of post-Bologna ITE master programmes in Portugal by drawing on the case of the practicum model implemented at the University of Minho (Braga, Portugal) since 2009/10. It presents data collected through a survey questionnaire and focus group interviews to practicum participants, and the analysis of a corpus of student teachers' practicum reports. The study shows that the emergence of an inquiry-based culture in the practicum is both innovative and controversial, incorporating tensions and challenges in regard to visions of teacher education, as well as (mis)matches between curriculum rhetoric and implementation. Findings point out the need to develop a scholarship of teacher education whereby ITE programmes are investigated and improved on the basis negotiated understandings.

Keywords: initial teacher education, practicum, inquiry-based approach

Corresponding author: Maria Assunção Flores. University of Minho, Institute of Education, Campus de Gualtar, 4710-057 Braga, Portugal. E-mail: aflores@ie.uminho.pt.

INTRODUCTION

Initial teacher education (ITE) has been investigated from different perspectives in Europe and elsewhere in order to assess and enhance the quality of professional learning (Borges & Aquino, 2014; Conway, Murphy, Rath & Hall, 2009; Flores, 2014a; Darling-Hammond & Lieberman, 2012; Zeichner & Conklin, 2008; Wilson, Floden & Ferrini-Mundy, 2001). As Cochran-Smith and Fries (2008, p. 1051) put it, “teacher education has been a contested enterprise, and research has often played a prominent role in disputes by documenting the current status of the profession, suggesting directions for change, and providing ammunition for major debates.”

Reform trends in ITE vary across national contexts and contradictory trends can be found, for example a move towards higher qualifications for teachers at a master degree level (e.g., Finland, France, Malta, Portugal), usually associated with a greater emphasis on research, along with the development of short, more pragmatic and school-based programmes (e.g., some ITE programmes in the UK, US and Australia), often related to the deregulation of teacher education, the growth of non-university providers of programmes, and the reduction of financial support to public universities (Zeichner, 2014).

One of the most controversial aspects of ITE is the role of research in professional learning. Inquiry-based teacher education has long been advocated (e.g., Smyth, 1989; Tom, 1985; Zeichner, 1983), but it is far from representing a common approach. Despite the existence of research-based ITE programmes, the most well-known being the Finnish model (Kansanen, 2014; Hökkä & Eteläpelto, 2014), the need to promote reflection and inquiry in ITE curricula is still an unresolved issue (Conway, Murphy, Rath & Hall, 2009; Murray & Passy, 2014).

In the case of Portugal, until the reform of higher education programmes resulting from the Bologna Process was implemented¹, research in ITE was mostly understood as a basis for transmitting educational knowledge rather than a professional developmental strategy. This situation changed when ITE master degree programmes were created on the basis of the new legal framework, requiring the production of a final practicum report assessed by an examining board. Institutions began to integrate research into ITE curricula, but there has been no consensus regarding how it is done, and research on post-Bologna ITE programmes is still very scarce (see Flores, 2011, 2014b; Flores, Santos, Fernandes & Pereira, 2014; Flores, Vieira & Ferreira, 2014; Vieira et al., 2013).

This chapter discusses the role of inquiry in the practicum of post-Bologna ITE master programmes, drawing on data from ongoing research into the practicum model of the University of Minho (Braga, Portugal)², collected through a survey questionnaire and focus group interviews to practicum participants, and the analysis of student teachers’ practicum reports.

¹ The Bologna Process was officially introduced in higher education in Portugal through the Decree-Law 74/2006, and in ITE through the Decree-Law No. 43/2007.

² The University of Minho is a public teaching and research institution founded in 1973, which has always integrated ITE as one of its main activities. It currently offers 13 ITE programmes.

POST-BOLOGNA INITIAL TEACHER EDUCATION IN PORTUGAL: INTEGRATING RESEARCH INTO THE PRACTICUM

ITE in Portugal is carried out in universities and polytechnic schools of education. Before 2007, teacher qualifications were obtained in two types of undergraduate programmes: five-year *integrated* programmes (the case of our university) that included content knowledge training, educational training, and the practicum in the final year, and *sequential* programmes where students could engage in teacher training for one or two years, after completing three years of subject-related education. National and institutional policies did not prescribe any particular approach to teacher education and supervision, and a theory-to-practice understanding of professional learning was generally assumed in the practicum.

After the reform of higher education programmes resulting from the Bologna Process (Decree-Law 74/2006), qualification for teaching is obtained in a two-year master programme in teaching, after a three-year undergraduate degree in a given subject (Decree-Law No. 43/2007). According to the current legal framework (Decree-Law No. 79/2014), master programmes have 90 or 120 credits and must integrate five curricular components: subject knowledge, general education, specific didactics, initiation to professional practice, and ethical, social and cultural education. For each component except for the last one, a minimum of credits is established, and initiation to professional practice is the component with most credits.

Initiation to professional practice consists mainly in the practicum, which is school-based and supervised by cooperating teachers and university supervisors³. It usually takes place in the second year (two semesters in 120-credit programmes), involving lesson observation and teaching in the cooperating teachers' classes. The newest aspect is that student teachers must produce a final practicum report that is discussed in a public viva and determines part of their final assessment.

Although legal regulations do not state that the practicum must have a research component, the fact that students get a masters diploma was tacitly understood by institutions as a motive to introduce it. Actually, "training in educational research methodologies" was vaguely identified as a compulsory component of ITE curricula in the first legal framework issued in 2007, with no credits allocated to it, and with the purpose of "enabling prospective teachers to adopt a research stance in their professional performance in specific contexts, on the basis of an understanding and critical analysis of relevant educational research" (Decree-Law No. 43/2007). The current legal framework issued in 2014 no longer indicates research as a curriculum component, and even though this might be seen as a political constraint to the legitimation of an inquiry-based approach, this kind of approach has been validated by the national agency for programme assessment and accreditation, which integrates educational experts.

³ Cooperating teachers are schoolteachers with a minimum of five years of teaching experience. They are appointed by school principals, on the basis of contacts established by the university. University supervisors are experts in specific didactics and are appointed by departments. In the case of bi-disciplinary programmes (e.g., English and Spanish Teaching), each trainee is supervised by two cooperating teachers and two supervisors.

The integration of research into the practicum has faced a number of challenges:

- Inquiry demands time. However, condensing professional development in two-year master programmes led to a reduction of time allocated to school-based practice, with potential negative effects upon students' preparation and opportunity to engage in pedagogical inquiry.
- There is a risk of making the practicum more academic and less profession-oriented, for instance, by conceiving practicum reports as theoretical monographs on didactic topics or descriptions of empirical research unrelated to pedagogical action⁴.
- Supervisors and cooperating teachers need to reshape traditional roles and expand professional competences in order to become partners of pedagogical inquiry and renewal. Moreover, the complexity of inquiry-based field experiences needs to be acknowledged and more time needs to be allocated to supervision in schools and training institutions⁵.
- In Portugal as elsewhere, recent educational reforms have tended to promote a rather conservative, performative, outcomes-based ideology that undervalues the moral and political dimensions of teaching. Managerial school cultures may reduce the transformative potential of inquiry-based practice (see Dover, 2013; Pillen, Beijgaard & Brok, 2013; Moreira & Vieira, 2012).
- The lack of a scholarship of teacher education, whereby teacher educators work in communities of practice to study and improve their practices, may disempower them as agents of change in academic settings where teacher education still tends to rely on a positivistic epistemology based on technical rationality rather than on a socio-constructivist view (Kinchleoe, 2003).

A CASE STUDY

This section presents the practicum model at the University of Minho and analyses it on the basis of ongoing research carried out at the Institute of Education.

Enhancing an Inquiry-Oriented Approach in the Practicum

Research on pre-Bologna ITE in Portugal revealed shortcomings regarding its transformative potential (Canário, 2002; Estrela, Esteves & Rodrigues, 2002; Formosinho, 2009). Canário (2002) pointed out the low status of experience and research in teacher

⁴ This has actually happened in many cases, along with the creation of course units for research training that is not directly linked to the practicum.

⁵ In fact, time conditions are now worse than before in the case of cooperating teachers, who no longer have the right to a decrease of teaching time in order to supervise trainees. They may supervise up to four trainees, depending on the number of classes they teach, but they usually accept no more than two. In the case of university supervisors, the time officially allocated to the practicum tends to be scarce, and the number of trainees they supervise depends on the supervisor-trainee ratio in each programme, which creates inequalities regarding supervisors' workload.

education and the conservative nature of programmes in terms of school renewal, which suggests that ITE was closer to approaches that “produce conformity” than to approaches that favour “innovative transgression” (p. 61). At the University of Minho, the integration of inquiry into the practicum was seen as an opportunity to enhance the transformative potential of ITE programmes, and a major challenge was “to design a model for the practicum within a tradition of practicum without a model” (Vieira et al., 2013, p. 2642).

The new practicum syllabus is explicitly based on a humanistic and democratic rationale and acknowledges the complex and ideological nature of the teaching experience as praxis, aiming at articulating teaching and research so as to enhance the transformative and empowering nature of professional learning and pedagogical practice (Vieira et al., 2013; Flores, Vieira, & Ferreira, 2014). The practicum is school-based⁶, but it also includes university-based supervision seminars, along with seminars from a variety of educational and subject fields, designed with the purpose of expanding student teachers’ competences and supporting practice. It aims at creating a multidisciplinary “third space” (Zeichner, 2010) where professional and academic rationales meet to build relevant educational knowledge through dialogue and inquiry.

The practicum involves an initial period of lesson observation and context analysis for the design of an individual project that integrates teaching and research purposes and is implemented in one of the cooperating teacher’s classes. Typically, projects emerge from the identification of a pedagogical problem (e.g., students’ resistance to writing in language classes) and involve learner-centred didactic and data collection strategies to understand and overcome that problem. They are documented in reflective portfolios that support the writing of final reports. Project design and development are supervised by cooperating teachers and supervisors. The latter are responsible for monitoring report writing and integrate the report examining boards.

Principles for project design and report writing emphasise democratic views of schooling, the adequacy of interventions to the contexts of practice and their educational value in regard to teacher and learner experience, the use of data collection to support the understanding and renewal of pedagogy, and the enhancement of professional development based on reflectivity, self-direction, collaboration, creativity, and innovation. These principles are in accordance with the main purpose of the practicum: to develop student teachers’ critical ability to understand and transform pedagogy.

Given the novelty of the model, there has been a significant concern with its coordination and evaluation, which are ensured by a general coordinator (the second author) and programme directors, who meet regularly with cooperating teachers and trainees. Every year, cooperating teachers are offered a 30-hour course on supervision, whose contents are directly related to the model and include an introduction to pedagogical inquiry with a focus on action research. With the purpose of developing a scholarship of teacher education, a Study Group on Initial Teacher Education was initiated in 2012 as an informal network of faculty teacher educators/supervisors⁷.

⁶ Time spent in schools varies across programmes and student teachers are expected to go to school every week. Teaching time also varies, with a minimum of 21 hours.

⁷ This network integrates the authors and is currently one of the initiatives of a unit aimed at enhancing innovation at the Institute of Education – Unit for the Study and Innovation of Pedagogy, coordinated by the second and third authors.

Data Collection Strategies

Table 1 summarises three strategies developed since 2009/10 to investigate the quality of new ITE programmes: a survey questionnaire, semi-structured focus group interviews, and the analysis of practicum reports. We will draw on data regarding the integration of teaching and research in the practicum.

The survey questionnaire has been administered by the practicum coordinator since the new model was first put into place in 2009/2010 (Vieira, 2014), with an impact on the gradual improvement of practices. The other two strategies were developed in the Study Group since 2012. All programme directors, who are also supervisors, were invited to participate in the focus group interviews and some collaborated in the selection of cooperating teachers and (former) student teachers from different programmes. As far as report analysis are concerned, 32 reports were selected from different ITE programmes. Selection criteria were topic variety and the diversity of supervisors and cooperating teachers involved. A grid for content analysis was designed, integrating pre-defined dimensions related to the rationale of the model. Reports were analysed extensively (2507 text pages) in terms of the explicit/implicit presence or absence of the set dimensions, and qualitative notes were taken about the limitations and the educational value of the projects.

Table 1. Inquiring into the Practicum

Inquiry strategies	Participants	Purpose and Focus of Inquiry
Anonymous survey administered in all programmes at the end of every school year from 2009/10 to 2013/14 (5 years) (list of 26 problems + open comments)	student teachers (n = 260); cooperating teachers (n = 133); university supervisors (n = 59); seminar teachers (n = 12) n = 475 (11 respondents did not indicate their role)	Purpose: To identify participants' perceptions of major problems affecting the practicum process. Focus: Practicum problems related to: coordination; relevance of seminars; adequacy of student teacher assessment; supervisory support; student teachers' commitment; conditions for project development; conditions in schools/classes.
6 semi-structured focus group interviews conducted in 2013, audiotaped and transcribed (10 open questions common to all groups)	Homogeneous groups (G): G1- student teachers (n = 3); G2- former student teachers (n = 2); G3-cooperating teachers (n = 4); G5/6- programme directors/university supervisors (n = 9) N = 18 (from different ITE programmes)	Purpose: To understand participants' perceptions of ITE programmes. Focus: ITE goals and methodologies; teacher educator profile; role of ITE curriculum in professional development; role of the practicum project and report in professional development; role of supervision in professional development; most positive and negative experiences in the practicum; recommendations for improving ITE.
Content analysis of practicum reports, initiated in 2012 (grid to analyse project reports)	32 reports completed between 2011 and 2013 within 7 teaching programmes (Biology-Geology, Mathematics, Philosophy, Portuguese-Spanish, English-Spanish, Primary Education, Pre-school Education) n = 32 reports (supervised by 37 cooperating teachers and 25 supervisors)	Purpose: To understand the nature of practicum projects and the role of research in professional development and pedagogical renewal. Focus: vision of education (conceptions of the teacher, the learner, and pedagogy); types and role of knowledge used; articulation between teaching and research (objectives, strategies and data collection/analysis); educational value of the project (gains, constraints, and recommendations).

Inquiring into the Teaching-Research Nexus

Table 2 presents survey results regarding problems in aspects related to project development.

Table 2. Participants' Perceptions of Problems Related to Project Development

Problems related to project development (2009/10 to 2013/14)	Total n = 475	Total %
Poor articulation between practicum seminars* and practice	198	41,7
Insufficient time/conditions for project design	196	41,3
Insufficient time/conditions for project development	181	38,1
Lack of support of the US in project design and development	71	14,9
Lack of support of the US in writing the practicum report	60	12,6
Lack of support of the CT in context analysis and instruction	43	9,1
Insufficient data collection to evaluate the project	37	7,8
Poor ST involvement in teaching and project development	27	5,7

US – University Supervisor / CT – Cooperating Teacher / ST – Student Teacher

* university-based seminars that are part of the practicum (not including seminars with supervisors).

Perceived problems are mostly related to the poor articulation between practicum seminars and pedagogical practice, and the lack of time and conditions for project design and development. These aspects appear to be closely related when we look at interview accounts⁸. Participants, especially student teachers and cooperating teachers, stress the fact that the practicum should be more school-based and less university-based⁹, and seminars are often perceived as theoretical and/or irrelevant to practice, with a negative effect upon student teachers' workload, teaching time, and project development:

(...) there should be no theoretical lessons in the practicum. It's a huge workload. And it doesn't allow us to devote more time to the practicum, with better planning and study (...). Therefore, as we enter the practicum (...) there should be no more theoretical lessons (...) because it's too much work. Sometimes conciliating both things is almost surreal (...). (ST2: 61)

(...) I wouldn't say that those lessons should be eliminated, I would rather say that practicum seminars should be developed differently. Instead of doing things at school, coming here and presenting them, or instead of having to present other things for final assignments, it would be interesting to do things here to be implemented in schools and all that would be considered for final assessment. I think that would be ok. (ST1: 66)

⁸ All excerpts from the interviews were translated into English and the interviewees are identified with the following code: ST – Student Teacher; CT – Cooperating Teacher; PD/S – Programme Director and Supervisor. Numbers are used to indicate different participants and their turn in the interview transcriptions.

⁹ This perception is aggravated in programmes that integrate other course units during the practicum. Given the number of course units and the fact that each semester only has 30 credits, it is often impossible to dedicate a full year only to the practicum as happened in previous models.

(...) I believe that the practicum is a very important component [of teacher education]. The scientific component, what we know, is important, but being in the classroom is very important. Learning to be in the classroom, learning to teach, it's very important. And I think that presently, in the practicum, at the University of Minho, that component is being quite overlooked (CT5: 59)

Cooperating teachers may sense a decrease in student teacher commitment to practice and in their own professional authority as a result of student teachers' involvement in university-based activities. A feeling of frustration and demotivation may arise:

(...) I always wanted to do supervision because I like doing it. But I like to supervise people who want to be supervised. Now, in the last three years what I've noticed is that their willingness to be supervised has decreased. Therefore, my role is null. (CT5: 65)

Nevertheless, the results in Table 2 above show that student teacher commitment and cooperating teacher support to practice are not perceived as significant problems. Moreover, cooperating teachers also stress an increase of student expectations and an expansion of supervision roles in the new model:

[We need] Training, training, training, today more than ever before, because, like it or not, we are always more exposed to evaluation than they are, I think. We are more evaluated. Because they come and say "P., do you think I should do this?," and I say "Actually, you need to ask the university supervisor because he's the expert." "Come on, tell me, help me do this"... I do it and it goes well and he says, "You see? It went really well"... or "It didn't work as you told me"... We are very exposed. I think we are much more exposed in this model. They demand much more from us... we need a little more knowledge (...). (CT4: 207)

Inquiry-based approaches may raise ambiguities regarding who is accountable for the research dimension of the projects. Cooperating teachers may not feel ready to respond to the demands of pedagogical inquiry and insecurity may emerge. Even though school-university collaboration is recommended and the university offers an initial course to cooperating teachers that integrates an introduction to pedagogical inquiry, the traditional divorce between schoolteachers and academics may foster a separation of roles. As one of the student teachers puts it:

The cooperating teacher is more oriented to practice and the university supervisor gives us that component that is more research-oriented. (ST3: 78)

Interviews signal the need for a more balanced articulation between university-based and school-based work, but some of the accounts also reveal a rather instrumental view of the practicum that could be summarised as follows: anything that cannot be directly related or applied to (immediate) practice is useless. Furthermore, ITE strategies can be perceived by student teachers as valuable from a *personal learning* perspective and invaluable from a *professional learning* perspective determined by beliefs and expectations regarding schooling, where curricula are mandatory:

(...) even though it [doing historical research in an archive] was a different way to learn history, and it was very interesting and I loved it, it was useless for my practicum, or for my future teaching (...). Because in secondary school, for example... I went to secondary school and I know how it works. (...) Teachers do not go to an archive to work there with the students, it's not common (...). There might be a teacher who does it occasionally (...) but it's not a curricular content, let's put it this way. And the work [in the seminar] was demanding on us, very thorough, very tiresome, with a lot of research (...). And it robbed me a lot of time. I'm not saying it wasn't interesting, but it was useless for me (...) because I'm not going to take, let's say, 7th grade or secondary students to an archive. (ST2: 71)

We might ask: when teacher development strategies are seen as useless from a professional learning perspective, does the problem lie solely on those strategies, or is there also a problem with school curricula and teacher agency? Why shouldn't school students learn to do historical research in an archive? And why are teachers so obedient to the formal curriculum?

Tensions do exist, however, in regard to the promotion of pedagogical renewal. Supervisors and cooperating teachers hold diverse visions of teacher education and teaching, and supervisors sometimes perceive schools as places of reproduction rather than transformation:

Another problem in the practicum is the incapacity I still feel, after more than twelve years, to articulate my work as a supervisor with the cooperating teacher's work, because there are necessarily two models, or two different visions of student teachers' initiation to practice. The person who is in the field has a routine practice that s/he passes on to the trainee, therefore our trainees have some difficulties in implementing new measures and pedagogical views, in taking to school this perspective of pedagogical intervention with research and reflection... So, it's complicated, it's difficult to achieve, but we keep trying to conciliate these two slightly different visions of what initiation to practice is. I would say that one vision reproduces a model more in tune with reality, and ours, which is more transformative, or innovative, is often incapable of impregnating practice. The view that the students enter the practicum and can create new materials and implement new strategies is sometimes not feasible. (CD/S1: 32)

In inquiry-based practicum, "it is the [student teachers'] ability to analyse and make meaning from their experiences that matters most". Therefore, field experiences should help student teachers problematise schooling, inquire into and reconstruct their visions so as to expand learner experience, and this is the purpose of the present model. Actually, student teachers' final reports document the development of learner-centred strategies underpinned by progressive visions of education, although those visions are sometimes implicit or even absent, which points out the need to improve supervisory support regarding the nature of student teachers' interventions in schools (Table 3).

**Table 3. Visions of Education
Underpinning Student Teachers' Project Reports**

		Total		
		EP	IP	A
<i>Vision of pedagogy</i>	Democratic, inclusive, learning-centred	16	8	8
<i>Vision of the teacher</i>	Reflective, agent of change	18	8	6
<i>Vision of the learner</i>	Reflective, constructor of knowledge	16	11	5

EP – Explicitly Present aspect / IP – Implicitly Present aspect / A – Absent aspect.

Tensions related to the role of inquiry in professional development emerge in the interviews. Even academic teacher educators, who are familiar with the potential of research for building new knowledge, raise doubts about its feasibility and value as a professional development tool in the practicum:

I realise that research can be done, as a teacher I can acknowledge that, but if we look at teachers' reality nowadays, I have many doubts that they can do research, especially the kind of research I see on projects. I think there is a big obsession here with research and much less with preparation, you see? I'm not saying that there cannot be a [research] component, but it shouldn't take... I don't know, seventy five per cent of the time should be for preparing teaching. They are going to be teachers, not researchers... (CD/S3: 244)

The thing is that initiation to teaching is done at the same time as initiation to scientific research or pedagogical research, which is another goal of this teacher education model. And you notice difficulties, you notice that they have some difficulty with project objectives and implementation, mainly these students with no research experience (...). And in general there is also a difficulty in conciliating both aspects, the pedagogical training and the intervention [project], because in fact it's double work. (CD/S1: 8)

Report analysis, however, shows that all projects aim at improving pedagogy and most integrate research and teaching purposes successfully. Student teachers design and implement various data collection strategies focused on educational aspects and use triangulation to increase the trustworthiness of their interpretations of experience, even though improvements can be made at this level¹⁰. Reports also demonstrate the construction of various types of knowledge related to different aspects of project development (Table 4). Nevertheless, knowledge about research is largely absent, that is, student teachers are able to design, carry out, describe and interpret pedagogical inquiry, but they seldom use theoretical research knowledge when they justify research options and analyse research processes. This problem

¹⁰ Data collection strategies with pedagogical purposes include documentary analysis (of curricula, coursebooks, students' school records, etc.), (un)structured lesson observation, learner questionnaires, learner self-regulation checklists, teacher and learner reflective records (e.g., in journals and portfolios), analysis of students records in learning tasks, and assessment of academic results.

points out the need to increase explicit training in pedagogical research during the practicum¹¹.

Ever since the practicum curriculum was designed, there has been a major concern with the type of research that is most suitable for professional development. It should be understood as a support to pedagogy, and action research has been recommended, but academic research traditions may pervade teacher educators' practices:

I really wish that this model is changed because of this research format, sometimes too demanding in terms of rigour...you see it in the examining boards, right? "The sample was not well chosen"... This is absolutely ridiculous in a teacher education context. So, we are confusing a practice [master dissertations] that is in accordance with our formats in academic master programmes, with a pedagogical experience that has a research component, that's ok, but doesn't have to present the rigour that is expected from a student in a scientific master programme, even because they [the student teachers] do not have the [research] training. (CD/S2: 238)

Table 4. Types and Roles of Knowledge in Project Development

		Types of knowledge											
		Contextual			Educational			Content			Research		
		EP	IP	T	EP	IP	T	EP	IP	T	EP	IP	T
Roles of knowledge in project development	Characterising the context	28	2	30	8	1	9	3	2	5	1	-	1
	Identifying a problem/interest	16	-	16	17	1	18	17	1	18	1	1	2
	Justifying the relevance of the topic	24	-	24	28	1	29	17	1	18	-	-	-
	Justifying pedagogical strategies	21	3	24	25	3	28	15	2	17	3	3	6
	Justifying strategies to analyse practice	5	-	5	14	3	17	5	2	7	6	-	6
	Analysing/evaluating practice	17	3	20	13	11	24	9	5	14	1	-	1
	Problematising/theorising the intervention	8	8	16	9	5	14	6	1	7	1	-	1
	Identifying shortcomings of the research	5	-	5	4	1	5	1	-	1	-	1	1

EP – Explicitly Present aspect / IP – Implicitly Present aspect / T – Total.

¹¹ Training in pedagogical research is the supervisors' responsibility, along with a few collective seminars. However, a more structured approach is needed and will be implemented in 2016/17. ITE curricula are currently undergoing some changes, and one of them concerns research training, which will be offered in a one-semester practicum seminar, in close articulation with the design of the student teachers' project, thus involving their supervisors.

Three types of research design were identified in project reports, presented in Table 5.

Table 5. Research Designs in Practicum Projects

	Total
Pre-test → Intervention → Post-test + Assessing impact	7
Action research (cycles of planning-acting-reflecting)	14
(Diagnostic) → Intervention with data collection → Assessing impact	11

Overall, no evidence was found to account for an academic-oriented view of teacher inquiry. However, research designs appear to rely on two different teacher education rationales pointed out by Zeichner and Conklin (2008): (a) implementing a particular teaching approach documented in the specialised literature (e.g., conceptual change in science education) and assessing its effectiveness through pre-/post-tests, whereby student teachers more or less “faithfully follow teaching scripts based on methods that allegedly have been shown to promote student learning” (op. cit., p. 273), and (b) implementing action research or interventions whose impact is assessed, aimed mostly at “developing teachers’ abilities to make decisions about which methods to use with particular decisions at a particular time” (ibidem). The last design in Table 5 resembles action research, but information collected during teaching does not feed into practice, and therefore its connection to teacher decision-making and pedagogical improvement is not clear. In fact, one of the shortcomings observed in student teachers’ reports is that the relation between action and reflection-on-action is not always explicit.

Despite the problems raised, all participants acknowledge the educational value of projects, especially the student teachers, who evaluate them very positively as regards their students’ and their own learning. Even though they complain about the lack of time, which is an important issue to consider in future developments of the model, their reports represent “narratives of growth” (O’Meara, Terosky & Neumann, 2008) that illustrate the potential of inquiry-based teaching by documenting efforts to renew pedagogy based on humanistic and democratic principles, through the development of a praxeological epistemology.

Nevertheless, the emergence of an inquiry-oriented culture in the practicum incorporates tensions and challenges, illustrated in professionals’ “narratives of constraint” (O’Meara, Terosky & Neumann, 2008), which indicates not only the need for improvements but also the urge for more collective reflection and negotiation. Diverse rationalities and contradictory perceptions can be found, signalling the complex nature of change processes, where dissonance should be expected rather than consensus.

CONCLUSION

Our case study reveals both divergence and convergence between the formal practicum curriculum and participants’ representations and practices. The model’s foundation on a democratic vision of schooling and inquiry-based teaching can be seen as an opportunity for transformation, well documented in the student teachers’ reports, but it also raise tensions that constrain the development of the model. Zeichner and Conklin (2008) underline the fact that

the philosophy and mission of any ITE programme may not be shared by all partners. Therefore,

(...) strengthening the ability of a teacher education programme to prepare teachers who are proactive decision makers and who are critical of school policies that they do not judge to be in the best interests of their students would not be a desirable outcome for advocates of the idea of teachers as compliant implementers of scripts. In the end, the determination of “excellence” is always dependent on moral and ethical questions and cannot be determined by empirical research alone. (Zeichner & Conklin, 2008, p. 273)

Data collected through the survey questionnaire and interviews disclose constraints, tensions and ambiguities in regard to the purpose and enactment of the model. Time spent in schools, the connection between university-based training and school practice, university-school collaboration in pedagogical inquiry and renewal, and the nature of inquiry appear to be critical aspects that raise questions about epistemologies of teacher education and teaching, and about supervision practices. This is in line with previous research which highlights the need for further comparative studies of the practicum process with a particular emphasis on the teacher educators’ role (Rozelle & Wilson, 2012; Ibrahim, 2013; Lawson et al., 2015).

Our personal stance, which is aligned with the models’ rhetoric and appears to be validated by report analysis, is that the practicum should represent a hybrid “third space” (Zeichner, 2010), and teacher educators and student teachers should become “third space professionals” (Whitchurch, 2013) whose action entails both teaching and research, theoretical and practical concerns, the production of diverse types of knowledge, and an ethics based on dialogue, collaboration and inquiry.

Inquiry-based field experiences will always raise doubts, insecurities and resistance in settings marked by a theory-to-practice approach where “the teacher educator filters, develops and shares knowledge with student teachers” (Korthagen, Loughran & Russell, 2006, p. 1030). A major implication we draw from the study is that we need to enhance a scholarship of teacher education so as to scrutinise the relevance and feasibility of inquiry-based approaches to the practicum, confront and negotiate understandings and epistemological beliefs, and build practices that improve the quality of teacher education and teaching.

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N.G.